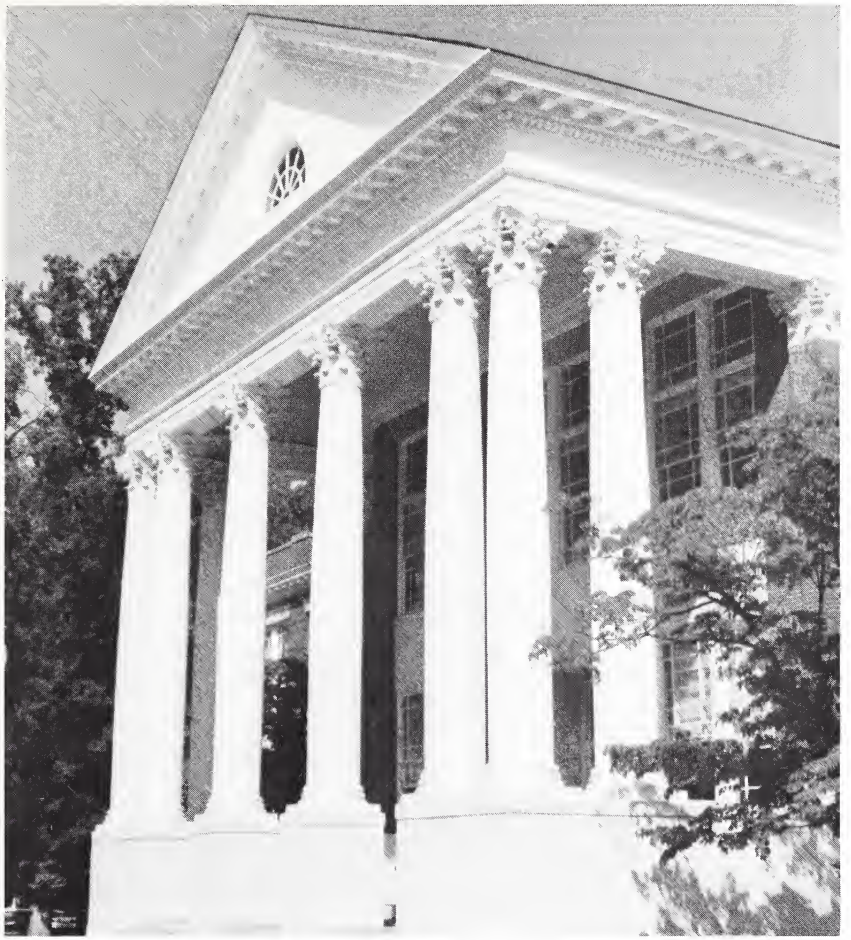
Academic Catalogue

Mary Washington College
1989-1991

Digitized by the Internet Archive
in 2012 with funding from
LYRASIS Members and Sloan Foundation

http://archive.org/details/marywashingtonc198991univ



MARY WASHINGTON COLLEGE

ACADEMIC CATALOGUE
1989-1991

★★★

Dedicated to the principles of equal opportunity and affirmative action, the College does not discriminate on the basis of race, color, religion, disability, national origin, political affiliations, marital status, sex, or age in recruiting, admitting, or enrolling students, or in hiring and promoting faculty and staff. the College will neither recognize nor condone student, faculty, or staff organizations that discriminate in selecting members. Complaints of discrimination should be directed to the Affirmative Action Equal Opportunity Employment Officer of the College.

The College provides disabled members of its community the opportunity to participate in campus activities and programs. To fulfill this responsibility, the College informs students, faculty and staff of how to take advantage of accessible locations. The College also stands ready to solve, if possible, whatever accessibility problems occur. For more information contact the Special Assistant to the President, George Washington Hall, (703) 899-4621. Telecommunication Devices for the Deaf are located in the Admissions office (V/TDD 703/899-4681) and the Personnel Office (V/TDD 703/899-4624).

The *Academic Catalogue* of Mary Washington College includes the official announcements of academic programs and major policies; detailed policies of admission, financial aid, student life, and academic affairs are published annually in separate documents, which may be obtained from the administrative offices responsible for those areas. All students are responsible for knowing the policies of the College.

Although the listing of courses in this *Catalogue* indicates the content and scope of the curriculum, changes do occur, and the actual offerings in any term may differ from those indicated in preliminary announcements. Because programs and policies change from time to time according to procedures established by the faculty and administration of the College, statements in the *Catalogue* do not constitute an irrevocable contract between the student and the College.

Mary Washington College is accredited by the Southern Association of Colleges and Schools.

★★★

Table of Contents

The College 5
Admission 10
Fees and Financial Aid 17
Campus Life 30
Academic Life 37
- Degrees 37
- Academic Services 43
- Academic Policies and Procedures 46
- Student Achievement 49
- Faculty Achievement 51

Academic Departments and Programs of Study 53
- Art 54
- Biological Sciences 60
- Business Administration 65
- Chemistry and Geology 69
- Classics, Philosophy, and Religion 73
- Computer Science 82
- Dramatic Arts and Dance 86
- Economics 91
- Education 95
- English, Linguistics, and Speech 101
- Environmental Science and Geology 109
- Geography 113
- Health and Physical Education 118
- Historic Preservation 121
- History and American Studies 126
- Interdisciplinary and Library Courses 132
- Master of Arts in Liberal Studies 134
- Mathematics 139
- Modern Foreign Languages 143
- Music 151
- Physics 158
- Political Science and International Affairs 161
- Psychology 165
- Sociology and Anthropology 170

Directory 178
Calendar 190

THE COLLEGE

★★★★★

A broad liberal education based upon freedom of inquiry, personal responsibility, and intellectual integrity is the best preparation for a rewarding career, the responsibilities of citizenship, and a fulfilling personal life.

Mary Washington is a state-supported, coeducational, predominately undergraduate residential college of the liberal arts and sciences. Its most important purpose is offering students a durable education which helps them develop the skills necessary for successful careers, sensitizes them to their responsibilities as citizens, and enables them to achieve the highest possible degree of self-realization. The College expects all its graduates to write and speak effectively, and to possess the intellectual discipline to learn productively for the rest of their lives. It is named after the mother of George Washington, who lived most of her life in Fredericksburg and is buried nearby.

Although primarily a teaching institution, the College encourages and supports individual and departmental research. The faculty have published over twenty books and hundreds of articles; arts faculty participate in shows and performances along the eastern seaboard, and faculty regularly serve as consultants within their areas of expertise.

The College's academic strength is nationally recognized. USA Today, U. S. News and World Report, the book How to Get an Ivy League Education at a Public University, and The New York Times Best Buys in Higher Education list Mary Washington as one of the nation's outstanding small colleges.

Mary Washington operates under an Honor System, essentially unchanged for half a century, which provides that a student shall act honorably in all facets of campus life. Lying, cheating, stealing, or breaking one's word of honor are infringements of the Code, and the penalty for violation, as determined by the Honor Council, may be dismissal from the College. The pledge required on quizzes, examinations, and other

classwork means that the work a student submits to an instructor is the student's own, completed according to the requirements for the course as laid down by that instructor. All students and faculty must understand that by joining Mary Washington College they commit themselves to live by and uphold the Honor Code.

The College also operates under a statement of community values and expectations about the behavior of its members:

The College is an academic community dedicated to the highest standards of scholarship, personal integrity, responsible conduct, and respect for the individual. We hold among our foremost common values:

--the importance of personal integrity as reflected in adherence to the Honor Code;

--the right of every individual to be treated with dignity and respect at all times;

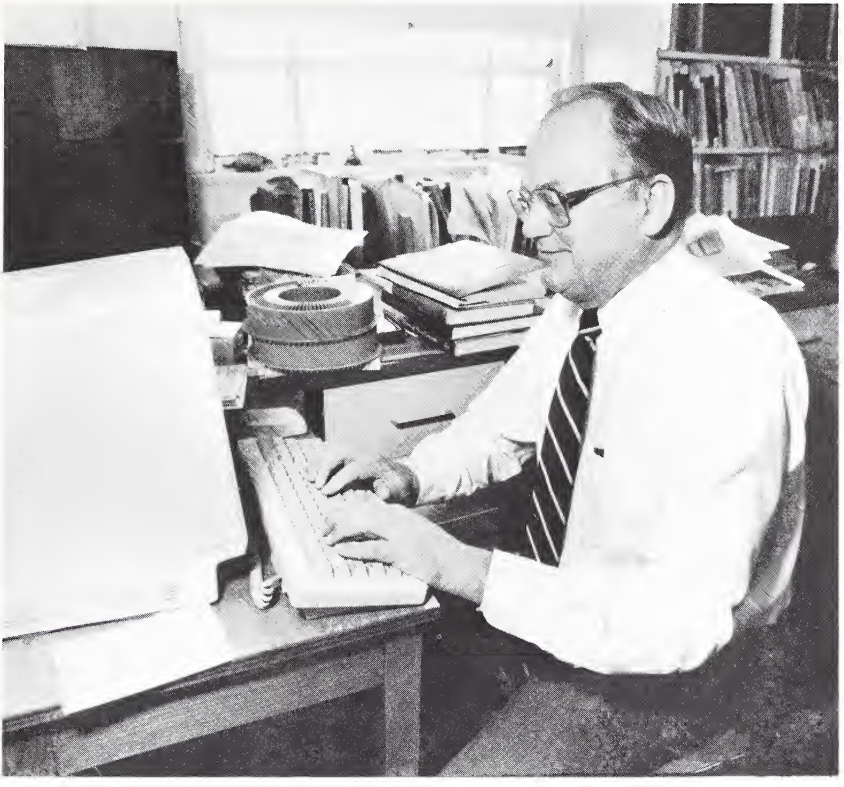
--the acceptance and appreciation of diversity in our community with regard to race, gender, culture, and creed;

--the freedom of intellectual inquiry in the pursuit of truth.

As members of the College community, we refuse to tolerate behavior that in any way compromises or threatens these values.

The Campus

The College occupies a large, park-like campus in an established residential neighborhood of Fredericksburg, Virginia. All major buildings are in an academic Georgian style appropriate to the College's setting. The central architectural feature of the campus is a broad brick walkway running over half a mile from one end of campus to the other and serving as a car-free promenade. Academic and residential buildings are interspersed along Campus Walk. Because parking is confined to the edges of the campus, the grounds offer ample and varied space, including substantial stretches of lawn, large wooded tracts, an orchard, and a formal rose garden. Over 100 different species of trees and shrubs grow on campus, including many imported ones, and each year the College plants over 10,000 annuals.



Closely affiliated with the College are Belmont, the home of artist Gary Melchers in nearby Falmouth, Virginia; and the James Monroe Law Office and Museum in downtown Fredericskburg. Belmont is a carefully restored eighteenth-century house overlooking the Rappahannock River which now functions as a gallery of Melchers' work. The James Monroe Museum preserves the office in which Monroe practiced law from 1786 to1789, furniture from his tenure in the White House, and other artifacts, clothing, books and letters from various Founding Fathers.

The College also operates a small retreat and conference facility at Pope's Creek in Westmoreland County, on the grounds of the George Washington birthplace national park.

The Mission

The College was founded in 1908 as the Fredericksburg Normal and Industrial School for Women. It was renamed Mary Washington College in 1938, after having developed from a teachers' college into Virginia's public liberal arts college for women. In 1944, Mary Washington affiliated with the University of Virginia as its women's undergraduate arts and sciences division. In 1970 the entire University became coedu-

cational, and in 1972 the College became an independent, state-supported institution for women and men with its own governing board.

The College is primarily an undergraduate institution with the large majority of its students living on campus. Emphasizing quality, Mary Washington attracts students from all areas of Virginia, particularly the urban areas of Northern Virginia, Richmond, and Tidewater. Approximately 25 percent of its residential students are from other states and foreign countries, with the largest proportion coming from Southern, Middle Atlantic, and New England states.

The College is organized into academic departments of one or more disciplines and offers more than 30 undergraduate programs in the liberal arts and sciences and in compatible professional fields. It awards the undergraduate degrees of Bachelor of Arts, Bachelor of Science, and Bachelor of Liberal Studies. It also offers an interdisciplinary graduate degree, the Master of Arts in Liberal Studies, and brings selected graduate programs in the professions to Fredericksburg via satellite from Virginia's major research universities.

In keeping with the principles of liberal education, the College places high value upon cultural diversity and global awareness. It seeks in its curriculum to reflect that diversity and promote that awareness.

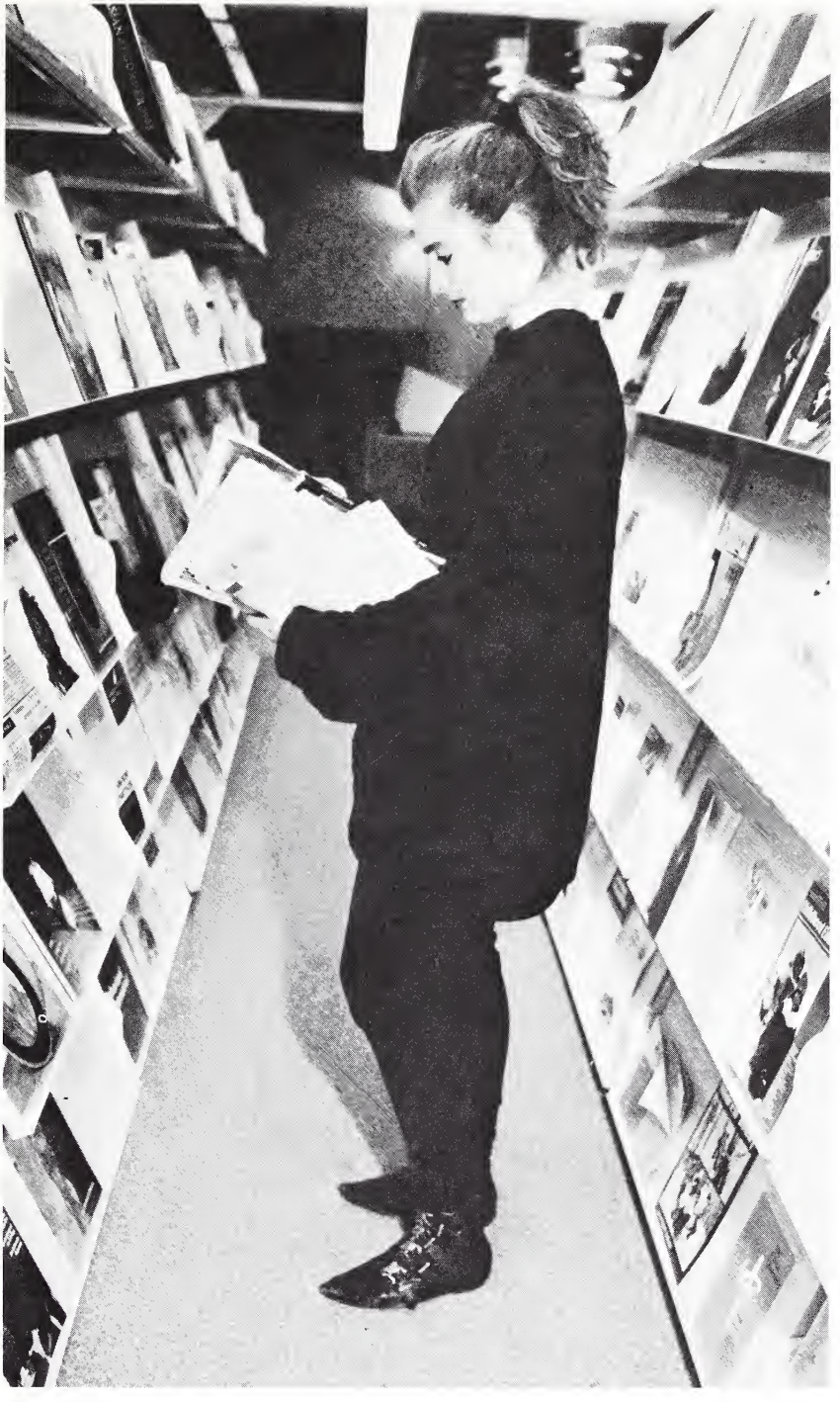
Mary Washington has historically focused on the liberal arts and sciences with the pursuit of academic excellence as the core of a value system emphasized throughout the College. This commitment to excellence and liberal learning will continue in the years ahead.

Believing that a broad liberal education based upon freedom of inquiry, personal responsibility, and intellectual integrity is the best preparation for citizenship and career, the College requires its undergraduates to pursue studies in the arts, the humanities, and the sciences as a necessary context for their concentration in a particular field of interest.

Mary Washington is also sensitive to the educational needs of the citizens within its commuting region and has established undergraduate and graduate programs designed especially for adult students. To fulfill the needs and interests of citizens in the region through the most effective use of existing resources, the College works in close cooperation with its neighboring state-supported institutions in planning and implementing new higher educational opportunities

Future Directions

In the decade of the 90's the College will build upon its outstanding liberal arts and science programs, proposing curricular additions and adjustments designed to meet new and increased demands. Mary Washington will continue to emphasize residential undergraduate liberal education and also will offer, within the liberal arts context, a limited number of compatible undergraduate and master's programs designed primarily for commuting students. As the focal point for developing programs for commuting students, the College has created a special division called the Fredericksburg Center for Graduate and Continuing Education.



ADMISSION

★★★★★

Valuing diversity among its students, faculty, and staff, the College does not admit students by any rigid formula. Nor does the College discriminate on the basis of race, color, religion, physical disability, national origin, political affiliation, marital status, sex, or age in recruiting, admitting, or enrolling students. Questions may be directed to the AAEEO Officer, Mary Washington College.

The College offers different degree programs to meet different needs:

- ★ the *Bachelor of Arts* and *Bachelor of Science* programs, for students who have recently completed high school;
- ★ the *Bachelor of Liberal Studies* program, for men and women 24 years of age or older;
- ★ the *Master of Arts in Liberal Studies* program for area residents who wish to earn a part-time interdisciplinary graduate degree.

By enrolling as *Special Students,* area residents may also take courses at the College to satisfy general interest, complete a second undergraduate major, or qualify for teacher certification.

The admission procedures for each program are outlined in the following sections. Anyone considering applying to the College should consult the most recent publications of a particular program for more information.

Admission to the Bachelor of Arts or Bachelor of Science Program

To be admitted as a degree-seeking student in the B. A. or B. S. programs, an individual must submit an application to the Vice-President for Admissions and Financial Aid. The applicant must also provide official transcripts from all secondary schools and colleges attended, along with results of The College Board Scholastic Aptitude Test. The Committee on Admissions reviews the completed application file and decides whether or not to admit the applicant.

A degree-seeking student may pursue the program part-time or full-time. Because regulations concerning financial aid and living in College housing vary according to one's status, any prospective student planning to pursue a degree part-time should consult with the Admissions Office.

A person admitted as a degree-seeking student retains that status until graduation from Mary Washington College. After admission, a Degree-Seeking Student cannot become a Special Student.

The Admission Process

The Committee on Admissions at Mary Washington College carefully considers each applicant's strengths, abilities, and talents. Candidates should understand that the College offers admission to a range of students. Since applications far outnumber spaces available, the Committee selects the students who it believes are best prepared for the College's educational program, and who can contribute significantly to the College community.

High School Preparation. Each applicant must have graduated from an accredited secondary school or the equivalent with credit for at least sixteen academic courses emphasizing college preparatory work. The Committee pays careful attention to the quantity and quality of the applicant's college preparatory curriculum.

Although the College does not require specific courses for admission, successful applicants usually have completed at least four years of English, three years of mathematics (including Algebra II), three or more years of laboratory science, , three or more years of social studies, and at least three years of one foreign language or two years each of two foreign languages. In addition to the core academic courses, elective credits earned in subjects such as art, music, drama, and journalism are appropriate.

The Committee on Admissions believes that the senior year is extremely important, and that central academic subjects such as English, mathematics, laboratory sciences, and foreign language should be continued through the final term.

Examinations. Students applying for admission from high school must take the Scholastic Aptitude Test of the College Board and have the official results sent to the College by the Educational Testing Service. The SAT should be taken no later than January in the senior year. An applicant who takes the test after that date will be considered only if space is available when the score is received.

The College strongly recommends, but does not require, that applicants submit achievement test scores. Students seeking exemption from the College requirement for competence in English composition must take the English Composition Achievement Test.

Character, Personality, and Interests. The College welcomes recommendations from appropriate school officials. The recommendations should assess academic potential as well as character, personality, and interests. Activities that reflect leadership or intellectual interests are

significant if they reinforce sound academic achievement. Since Mary Washington operates under a successful honor system, assurance of personal integrity is indispensable.

Admission After High School

A student who wishes to enter Mary Washington shortly after graduating from high school should request application materials from the Vice-President for Admissions and Financial Aid. The application should be returned as soon as convenient, along with a $20 nonrefundable application fee or an official fee-waiver form approved by a high school guidance counselor. The applicant's high school should send an official transcript directly to the College. The applicant should also ask The College Board to send results of the Scholastic Aptitude Test (SAT) directly to Mary Washington (CEEB Code Number 5398).

Students applying for admission from high school may be considered under one of three plans.

Early Decision Plan. A student who has selected Mary Washington College as a clear first choice may apply for admission under the Early Decision Plan. The application must be submitted by November 1; the College agrees to notify the student of its decision by December 15; and the student agrees to accept an offer of admission if it is extended. Students admitted under the Early Decision Plan are automatically nominated for the Regional Scholarship Program.

Early decision candidates must complete an Early Decision Agreement form along with the regular application. Although the candidate may apply to other colleges, he or she must agree to withdraw those applications if accepted by Mary Washington.

Should the Committee not act favorably on an early decision request, the applicant's file will remain active, and the Committee will give it unbiased consideration after the candidate submits additional grades and/or test scores following the fall semester.

Honors Admission Plan. The Committee on Admissions may select high school students with exceptionally strong academic records to receive Honors Admission. Any student whose application file is complete before January 15 automatically becomes eligible for possible Honors Admission. The Committee awards Honors Admission on the basis of outstanding high school performance and SAT scores. Students who receive Honors Admission will be notified within three weeks after their files are complete. In addition to early notification, students awarded Honors Admission are eligible to compete for the Regional Scholarship Program. Honors Admission candidates need not make a commitment to attend the College until May 1.

Regular Admission Plan. Applicants who are not admitted under the Early Decision or Honors Admission plans are considered for Regular Admission.

All applications for fall semester admission should be submitted by February 1; applicants who meet this deadline will be notified of the Committee's decision by April 1. Applications filed after the February 1

deadline are considered only as space becomes available. Various deadlines concerning final transcripts, deposits, and medical examinations occur following the offer of admission. All students who accept the offer of admission receive the necessary information.

Deferred Enrollment. If asked, the College may grant an accepted student one year to exercise the option of enrolling. Those who delay enrolling are subject to admission requirements in force at the time of acceptance, but to rules, regulations, and financial charges in effect when they actually enroll. Student who enroll at another institution before enrolling at Mary Washington must reapply as transfer students.

Advanced Placement. Students may apply for college credit through the examinations in various academic subjects given by the Advanced Placement Program of the College Board. Students should contact the Office of Academic Services (703/899-4694) to get the AP exam scores required for credit in particular subject areas. To apply for AP credit, students should have official results of the Advanced Placement examination forwarded to the College.

Challenge Examination. To demonstrate mastery of subjects covered in certain Mary Washington courses, an entering student may take examinations to support a petition for academic credit. Examinations are not available in studio and laboratory courses, seminars, individual study courses, and many upper-level courses. The credits earned may not count toward the major program, but may be used to satisfy General Education Requirements. A fee is charged for taking a challenge examination.

Admission as a Transfer Student

The Committee on Admissions selects transfer students on the basis of their applications, high school transcripts, Scholastic Aptitude Test score, and transcripts of all college work. Candidates may be considered for transfer admission only if, at the last institution attended, they are entitled to honorable dismissal without academic or social probation.

Transfer Credit. As a rule, the College grants transfer credit for courses of the same type (liberal arts and sciences) and under the same guidelines as courses offered by Mary Washington. Courses for which a student requests transfer credit must have a minimum grade of C and must not overlap or repeat those which the student takes at the College. Transfer applicants should have official transcripts from other institutions sent directly to the Office of Admissions. They also may be asked to provide a catalogue for evaluating their credits.

Residence Requirement. To be eligible for a Mary Washington degree, a student must earn thirty semester hours of credit in a degree program at the College and must complete at least fourteen of the last twenty-one credits at Mary Washington.

The Transfer Admission Process. Prospective transfer students should request application materials from the Vice-President for Admissions and Financial Aid, returning the application and the $20 nonrefundable application fee as early as possible. Transfer applicants must also arrange for their secondary schools and all colleges attended to send official transcripts to Mary Washington. The College should receive all materials by March 1 for the fall semester, and by November 1 for the spring semester. After these deadlines, the Committee on Admissions will consider applications only as space becomes available. The number of transfer applicants is far larger than the number of spaces available, especially for the spring semester

The Committee considers all aspects of the record in deciding whether or not to admit a transfer candidate; however, it puts particular emphasis on the student's program and academic achievement in the college last attended.

Admission before High School Graduation

On occasion, the College allows students with exceptional ability to enroll before graduating from high school. Three arrangements cover most circumstances: Admission to the Summer Session; Admission to Part-Time Study during the Regular Session; Admission after the Junior Year. Details are available from the Vice-President for Admissions and Financial Aid.

Admission to the Bachelor of Liberal Studies Program

To be admitted to the BLS program, a candidate must be at least twenty-four years old, go through a preliminary interview, and demonstrate the ability to handle college level work by accumulating 15 hours of academic credit before being accepted into the program. The BLS offers great flexibility in the timetable leading to graduation because it does not require full-time study or extended residence at the College. Yet the program offers the advantages of a traditional college degree: exposure to the range of modern liberal arts learning, combined with thorough study of some specific area.

Individuals interested in admission to the Bachelor of Liberal Studies degree program should contact the Associate Dean for Graduate and Extended Programs (703/899-4614) to arrange a preliminary interview.

Admission to the Graduate Program

The Master of Arts in Liberal Studies is designed for part-time commuting students who wish to complete an interdisciplinary liberal studies graduate degree.

Any student holding a Bachelor's degree from an accredited institution, with a B average earned in the last two years of work, may apply. A student with a lower average may apply for conditional status. After completing the initial courses with a B average, the conditional student becomes a candidate for the degree.

All candidates for admission are interviewed by the director of the program. Individuals interested in the program should contact the Associate Dean for Graduate and Extended Programs (703/899-4628).

Admission as a Special Student

A special student is allowed to take courses at Mary Washington College but is not enrolled in a degree program. Special students complete an abbreviated application form, and the Associate Vice-President for Academic Affairs decides whether or not to admit them.

Special students typically register for eleven or fewer credits per semester, and pay tuition according to the number of credits they attempt. A special student can seek permission from the Associate Vice-President for Academic Affairs to exceed the eleven credit limit. Full-time special students must be college graduates seeking certification in education or a similar field, college students permitted to take a full program of study to transfer to a degree program at their home institutions, or students taking a full program to qualify for graduate or professional school admission.

Publicity and details for registering special students appear in local media and are available from the Office of Student Services (703/899-4694) shortly before the beginning of each term. Although a special student may apply at any time up to the first day of class, the College strongly recommends that the application and other necessary documents be filled out during registration.

Fees and Financial Aid

★★★★★

The fees outlined in this section have been approved by the Board of Visitors and are effective for the 1989-90 fiscal year. Any changes from this schedule of fees will be announced immediately. Questions about fees and payment procedures should be directed to the Office of Student Accounts in George Washington Hall (703/ 899-4631). Questions about financial assistance and general college expenses should be addressed to the Office of Admissions and Financial Aid, Lee Hall (703/899-4684).

Full-time Residential Students. The fee schedule below is for a student carrying 12 to18 semester credit hours. A student carrying more than 18 semester credit hours must pay a tuition overload fee for each additional credit hour (see page 19). Fees for future years will be publicized at the appropriate time.

1989-90 Fees for Full-Time Students

	Virginia		Non-Virginia	
	Term	Year	Term	Year
Tuition	$ 723	$1,446	$2,061	$4,122
Comprehensive Fee	429	858	429	858
Residential Fee	1,096	2,192	1,096	2,192
Board	843	1,686	843	1,686
Total	$3,091	$6,182	$4,429	$8,858

The comprehensive fee supports student organizations, athletic programs, and a variety of other college programs and services. Most student activities and events are provided without additional charge to the student.

The residential fee includes health center services; however, any prescribed medication is charged to the student's account.

The board charge includes three meals a day, seven days a week, throughout the academic session. All residential students must participate in the full board plan.

Non-residential full-time students pay tuition and the comprehensive fee, for semester and yearly totals of $1,152 and $2,304 (Virginia residents), $2,490 and $4,980 (non-Virginia residents). A partial board plan is available for commuting students.

1989-90 Fees for Part-Time Students

	Virginia Students	Non-Virginia Students
Undergraduate	$73 per credit hour	$161 per credit hour
Graduate	$74 per credit hour	$161 per credit hour

Tuition for part-time undergraduate students includes a reduced Comprehensive Fee of $19 per credit hour, reflecting College policy that only full-time students may participate in student activities and use recreational facilities such as Goolrick Gymnasium and the Battleground Athletic Complex. Part-time students are not ordinarily eligible for health center or dining hall services. A part-time undergraduate student may participate in either of these services by paying the appropriate fee at registration.

Special students also pay a non-refundable $20 registration fee which permits enrollment in fall and spring semesters.

Part-time students participating in the off-campus teacher training program must pay a non-refundable fee of $100 when they apply for student teaching.

Other Fees

Application Fee. A non-refundable fee of $20 must accompany the application for admission from a first-time undergraduate, degree-seeking applicant. This fee is applied to the cost of processing the application for admission. It is entirely separate from other fees, is not refundable, and cannot be deducted from other charges.

Contingent Fee. All residential students must pay a $100 Contingent Fee when they enroll at the College. This fee is in addition to those outlined above, is included in the bill for the first semester, and is due with the first payment. The Contingent Fee will be applied against any outstanding balance upon graduation or withdrawal from the College. Any remaining portion of the Contingent Fee will be refunded at that time.

Declaration-to-Continue Fee. A non-refundable fee of $20 must be paid by all undergraduate degree-seeking students (except BLS students) returning to or continuing in the College.

Late Payment Fee. A fee of $100 will be charged to students whose accounts are not paid in full by the published deadline. Pursuant to §2.1–732 of the *Code of Virginia*, interest may also be charged on all past due accounts in accordance with guidelines of the State Department of Accounts and at the underpayment rate prescribed in §58.1-15.

Tuition Overload Fee. A full-time student registering for more than 18 semester credit hours is required to pay an additional fee. For Virginia students the charge is $54 for each credit hour exceeding 18, and for non-Virginia students $142 per credit hour.

Returned Check Fee. There is a service charge of $20 for each check returned for insufficient funds or similar reasons. A cashier's check is then required in place of the returned check.

Audit Fee. Part-time students may audit a course for no credit on a space-available basis for a fee of $15 per credit hour.

Credit-by-Examination. Degree-seeking students may take special or individually prepared examinations for which credit is awarded for a fee of $45.

Riding Fee. Classes in horsemanship are available and require payment of a special instructional fee in addition to the tuition charge. This fee ranged from $379 to $429 per semester in 1988-89, but is subject to change. Transportation from the campus to the stable is also available for an additional fee.

Study Abroad Fee. Students planning to study abroad for a semester or year must pay a program service fee of $25 per semester for advising, counseling, and other administrative details required for this program.

BLS Life/Work Portfolio. BLS candidates pay a $50 fee for the review of a life/work portfolio.

Senior Citizens

A legal resident of Virginia 60 years of age or older may take Mary Washington College courses at reduced rates if space is available. A resident having a taxable income not exceeding $5,000 for federal income tax purposes for the preceding year may enroll in courses for credit or non-credit or may audit credit courses at no charge. A Virginia senior citizen with Federal taxable income exceeding $5,000 may audit credit courses or enroll in non-credit courses without paying general college fees, but must pay general college fees to take courses for college credit. The application fee of $20 will be charged an applicant whose taxable income exceeds $5,000.

Terms of Payment

All fees, including room and board, are billed and payable in advance by the semester.

Room and Tuition Deposits. After receiving notice of acceptance for admission or continuance by the Vice-President for Admissions and Financial Aid, full-time students must make a deposit ($200 for residential students, $100 for non-residential students) toward their tuition and fees. These deposits are not normally refundable after a specified deadline and are applied to the fees for the regular session.

No student will be assigned a residence hall room until the College has received the room and tuition deposit. Any student who changes from residential to commuting status after an announced deadline must pay the room fee for the assigned space for the semester. Exceptions will be made only in the most unusual circumstances, as determined by the Vice-President for Business and Finance and the Vice-President for Admissions and Financial Aid.

Statements and Due Dates. The College mails each student a statement well in advance of the beginning of each semester, and payment is due by the date specified on the statement. Any variations from the terms of payment must be approved in writing by the Vice-President for Business and Finance prior to the due dates.

If a full-time student has not received a statement of charges and fees within 20 days before the beginning of the semester, the student should notify the Office of Student Accounts as soon as possible, so that a statement can be prepared and mailed, and the account paid by the due date.

At the end of the semester a student's account will include any charges incurred for library fines, lost books, parking tickets, prescriptions, lost keys, building and equipment damage, and other miscellaneous charges. At this time, any student whose full account has not been settled will not be permitted to take exams, receive grades or transcripts, or be eligible to return to the College until the account is settled.

Scholarship and Loan Awards. If a student is receiving financial aid through Mary Washington College, one half the annual award will be shown on each semester statement. If an expected award has not been credited on the statement, the student should contact the Office of Financial Aid for clarification.

A student receiving financial aid from a source other than the College must make sure that the Office of Student Accounts receives notification by the statement due date of the award, its amount, and method of payment. Failure to provide notification could result in a student's account being delinquent. Awards and loans from sources other than the College will not be credited to the account until they are actually received by the Office of Student Accounts.

Delinquent Accounts. Any charge incurred in collecting a delinquent account will be added to the account. This applies, but is not limited, to charges by an attorney or collection agency.

Refund of Fees. A student who withdraws from the College during the semester should promptly complete an official withdrawal form in the Office of Student Records in George Washington Hall. A copy of the form will be sent to the Office of Student Accounts and will serve as the basis for withdrawal charges and credits.

The following charges are applicable for students withdrawing during the semester:

Semester Basis	1st/15th day of semester	16th/55th day of semester	After 55th day of semester
Tuition	20% of semester charge	50% of semester charge	Full semester charge
Residential Fee	$200	50% of semester charge	Full semester charge
Comprehensive Fee	20% of semester charge	50% of semester charge	Full semester charge
Board Fee	Charges will be assessed on the basis of the number of days in residence at the prevailing board rate for the semester in which the student withdraws.		

For the purpose of determining withdrawal charges, the semester begins with the first day of classes. A residential student withdrawing before the first day of classes will be charged the $200 room deposit and board at the prevailing rate.

Classification as a Virginia Student

The *Code of Virginia*, section 23-7.4, governs eligibility for in-state tuition rates at Virginia public institutions of higher education. In general, a dependent student, the parents or legal guardians of a dependent student, or an independent student must have been legally domiciled in the Commonwealth of Virginia for one full and continuous year immediately before the first official day of class within the semester or term of the student's program. Living in the state simply to attend school does not constitute legal domicile. Certain exceptions are made for newly-stationed military personnel and non-military spouses who are employed full-time. Detailed questions about domiciliary status are part of each application for admission. Questions about residency status should be addressed to the Office of Student Accounts (703/899-4631).

Financial Aid

Primary responsibility for financing a college education must be assumed by the parents and the student. Mary Washington College does, however, assist students whose parents cannot provide all the funds needed to meet college costs. Approximately three million dollars is available per year to supplement the efforts of its students' families.

The College believes that although financial need should be the prime consideration in awarding grants and loans, merit should also be recognized. The College uses some scholarship funds to reward and encourage high academic achievement.

The College's policy is to meet a percentage of the demonstrated need of every student who meets the application deadline, without regard to physical disability, political affiliation, marital status, sex, color, race, religion, age, or national origin. To do so, the College provides a package of assistance combining loans, grants, scholarships, and employment. Students with greater need will receive larger grant and work resources than those with lesser need. This procedure guarantees

each recipient a fair share of gift funds, keeps loans at a reasonable level, and develops a sense of responsibility and independence through self-help. In calculating need, the College considers only direct educational costs.

Demonstrated need is determined by evaluating the applicants' and their families' incomes and assets. As a member of the College Board, Mary Washington subscribes to the College Scholarship Service (CSS), which provides a systematic analysis of the applicant's resources. From this analysis the financial aid officer determines the amount of demonstrated need a student may have and then uses the College's available resources to meet that need. Financial need is the difference between the cost of an education at Mary Washington College and the amount of money a student and the family can reasonably provide.

Freshmen and transfer students must submit a *Financial Aid Form* (available at high schools or colleges) postmarked to CSS before March 1. Returning students must have the *Financial Aid Form* postmarked before March 15. Early decision candidates should file the *Financial Aid Form* after January 1 of the senior year. The form must indicate that Mary Washington College (CSS code 5398) should receive a copy of the results of the need analysis. First-time students will be informed of their financial assistance by mid-April and returning students by mid-July. Applicants who do not meet the *Financial Aid Form* filing deadlines will be considered for assistance only if they demonstrate need and funds are available.

All students are expected to contribute a portion of their summer earnings to their education costs. During the 1989-90 session freshmen are expected to contribute $700 and upperclass students $900 from their summer earnings, or 70% of their 1988 earnings.

Detailed information about merit scholarships and all other financial aid programs is available from the Office of Financial Aid at the College. Toll-free telephone numbers are1-800-468-5614 (in-state) and 1-800-233-4196 (out-of-state).

Scholarships, Awards, and Grants

The Edward Alvey, Jr., Scholarship. Established by the Class of 1936, the scholarship is awarded annually to the student most closely emulating the commitment to education and academic excellence exhibited by Dr. Alvey throughout his outstanding career at Mary Washington College. The recipient must be enrolled in an approved program leading to certification as a teacher and must have a grade point average of at least 3.0. Selection will be made by the Office of Financial Aid in consultation with the Department of Education.

Maurine Arnott Scholarship. This scholarship was established by a bequest from Maurine Arnott to aid worthy and needy students, with preference given to females.

Lalla Gresham Ball Scholarships. These scholarships were established by Mrs. Jessie Ball duPont in memory of her mother. An applicant must reside in one of the following counties of Virginia: King George, Westmoreland, Northumberland, Richmond, Lancaster, Essex, or King and

Queen. These scholarships may be renewed annually provided the recipient maintains good academic standing (at least a 2.0 cumulative grade point average) and is enrolled full-time.

Biology Research Grants. By the gift of an anonymous donor, stipends are available to support research of students majoring in Biology or Environmental Science. Information may be obtained from the Chair of the Department of Biological Sciences.

Lt. General Albert J. Bowley Scholarship Fund. This scholarship was established by Mrs. Elsie Ball Bowley in memory of her husband, Lt. General Albert J. Bowley, a distinguished officer of the United States Army. The recipient is to devote to the James Monroe Memorial Museum as much time and service as the authorities of Mary Washington College prescribe. Consideration is first given to juniors and seniors who are daughters of service personnel, and then to students from foreign countries (preferably Latin American) or to upperclass students whose major interests and work lie in the fields of history or political science. Inquiries should be addressed to the Academic Dean.

Bushnell Scholarship. This scholarship is awarded to a student in need of financial assistance who maintains satisfactory academic progress.

Chandler Scholarship. Algernon B. Chandler, President of Mary Washington from 1919 to 1928, bequeathed a sum to the College. The proceeds are used toward the education of a junior or senior selected on the basis of scholarship and need.

Ann Elizabeth Collins Memorial Art Award. Established in memory of Ann Elizabeth Collins ('73) by friends, relatives, and faculty, this award is given annually to the student who has the greatest potential for pen and ink drawings and graphics. The recipient, selected by members of the Department of Art, receives the award at the Student Art Show or other appropriate event.

Lester D. Crow Scholarship for Student Teachers. This scholarship, established by Lester D. Crow, a former faculty member at Mary Washington College, is awarded twice annually to students enrolled in Education 440, Supervised Teaching. The recipients are selected by the faculty of the Department of Education from applicants who have demonstrated scholarship and an aptitude for teaching. Preference is given to students with demonstrated financial need.

Oscar H. Darter Scholarship in History. This award was established in 1988 by Mrs. Lela Deere Darter in memory of her husband Dr. Oscar H. Darter, who served on the faculty at Mary Washington College from 1926 until his retirement in 1960. It is awarded annually to a rising junior or senior majoring in History. The recipient shall possess an academic standing and personal traits of distinction which emulate the high standards of achievement exhibited by Dr. Darter during his lifetime, including his lifelong interest in the History of World Civilization.

James Harvey Dodd Award in Economics. Established in memory of Dr. James Harvey Dodd, who served on the faculty from 1928 to 1962, this

annual stipend is presented to a student who intends to pursue graduate studies in economics.

Ann Elizabeth Fitschen Memorial Political Science Award. Established by gifts from family, friends, and classmates of Ann Elizabeth Fitschen ('75), a cash award is made annually to the senior majoring in political science with the highest academic average, as determined by the faculty of the Department of Political Science and International Affairs. An additional sum is presented annually to the Department, on behalf of the recipient, to be spent at the discretion of the Department's Chair.

Barbara Diane Hall Foundation. Established by Mrs. Dorothy N. Bonnet in memory of her granddaughter, the scholarship is awarded annually to a fine arts major attending the College.

Anne and Sidney Hamer Music Award. This annual award is presented each spring semester to the Bachelor of Arts music major who has earned the highest overall grade-point average during his or her three and one-half or more years of study at the College.

Beulah M. Hartman Scholarship Fund. Established in 1989 by Mr. and Mrs. Donal F. Hartman, family members, and friends in memory of Mr. Hartman's mother, Beulah M. Hartman, this scholarship is awarded annually to an undergraduate student with demonstrated need who has declared his or her intention to pursue teacher certification and a career in the field of education.

Henry W. Hewetson Award. This annual award is presented to a student who has demonstrated superior academic achievement in Economics. The recipient is selected by the faculty of the Department of Economics.

The Mary Siegrist Hinz Leadership Awards Program. Established in 1987 by Mr. Dan H. Hinz, Jr. and Mr. and Mrs. Robert R. Siegrist in memory of Mary Siegrist Hinz, a 1981 Summa Cum Laude graduate of Mary Washington College, this program provides a full year's tuition and fees to four rising junior or senior students. The recipients must possess characteristics of citizenship which reflect a concern for others and an unselfish desire to contribute to the welfare of others. The recipients must also have demonstrated athletic excellence in organized competition, at the varsity, club, or intramural level. Additionally, recipients must have definite career objectives. This is a competitive program for which candidates may apply to the Office of Financial Aid.

Winnie Hudson Hodgson Scholarship. Established by Mrs. Hodgson (Class of 1940), the scholarship is awarded annually to a deserving student, with preference given to a worthy and needy graduate of Culpeper High School.

The Michael Houston Memorial Fund. Established in 1973 in memory of Michael Houston, the first Vice-President of the College and Associate Professor of History, the Fund awards scholarships to students whose parents are among the classified personnel of the College.

Earl G. Insley Chi Beta Phi Scholarship. Established in 1989 by the Chi Beta Phi chapter at the College, members of Professor Insley's family,

and friends, in memory of Professor Insley, who founded the Mary Washington chapter of Chi Beta Phi in 1945, this scholarship is awarded annually to a senior member of Chi Beta Phi majoring in one of the natural or physical sciences or mathematics.

Martin Luther King Memorial Scholarship. Established by members of the College community following the assassination of Dr. King, this scholarship is awarded to a financially needy student selected by the Office of Admissions and Financial Aid.

Albert R. Klein Memorial Scholarship. This scholarship was established in memory of Dr. Albert R. Klein, former Chair of the Department of Dramatic Arts and Speech. Preference is given to students pursuing a major or concentration in drama or speech.

Mary Jo Kleiner-Phillips Scholarship. The recipient must be a junior or senior from Virginia or Maryland, must have a cumulative grade point average of at least 3.00, and must be working toward teacher certification in elementary education (K-6).

Ralph A. Niemann Scholarship in Computer Science. Established in 1988 by family and friends in memory of Ralph A. Niemann, this scholarship is awarded annually to a rising senior majoring in Computer Science. The scholarship is awarded on merit to a student possessing the academic standing and personal traits which emulate the high standards of achievement exhibited by Mr. Niemann during his lifetime. Mr. Niemann was a pioneer in computer development and served as head of the Strategic Systems Department at the Naval Surface Warfare Center in Dahlgren, Virginia.

Carrol H. Quenzel Memorial Scholarship Fund. Established in memory of Dr. Carrol H. Quenzel, former Mary Washington Librarian and Professor of History, these annual scholarships are awarded to deserving junior and senior students. Preference is given first to those who worked in the Library in the previous semester or who are working there in the current semester, and next to students majoring in history.

Jeannine Mary Pfeifle Scholarship. In memory of Jeannine Mary Pfeifle, class of 1979, this $500 scholarship is awarded each year by a College selection committee to a rising senior who is a U. S. citizen. Specifically, and in descending order of priority, the recipient must be a daughter of a U. S. Marine serviceman, daughter of a U. S. Navy serviceman, son of a U. S. Marine serviceman or son of a U. S. Navy serviceman.

Minnie Rob Phaup Memorial Scholarship. Established in memory of Minnie Rob Phaup, former member of the Mary Washington College faculty, this scholarship is awarded to outstanding psychology majors in either the junior or senior year at the College.

Lynn Ruby Memorial Scholarship. Established in memory of Lynn Ruby ('68), this award is available first to graduates of Woodbridge Senior High School, Woodbridge, Virginia, and then to residents of the State of Ohio.

Oscar Theodore Schultz III Award in Mathematics. This award, established in the spring of 1984, commemorates Oscar Schultz, a master of the art, as well as the science, of mathematical analysis. Selected by a committee of the mathematics faculty, the recipients are junior or senior mathematics majors who have demonstrated desire and potential to master the art of mathematics. Through them, the ideals of Oscar Schultz live on.

Grellet C. Simpson International Scholarship. Established by the Alumni in 1974, this scholarship was endowed by President Emeritus Simpson in appreciation for alumni support during his tenure at the College. It is awarded annually to a junior or senior student to aid their study abroad.

Annie Fleming Smith Scholarship Fund. This scholarship was established by Mrs. Elsie Ball Bowley in memory of Mrs. Annie Fleming Smith, whose efforts made possible the preservation of Kenmore, the home of George Washington's sister. The recipient must devote to the Kenmore Association as much time and service as the authorities of Mary Washington College prescribe. In awarding this scholarship, primary consideration is given to students from the Northern Neck of Virginia, consisting of the counties of King George, Westmoreland, Richmond, Lancaster and Northumberland. Inquiries should be addressed to the Academic Dean of the College.

Rebecca Culbertson Stuart Memorial Scholarship. Established in 1989 by her husband, David Burgess, family members, and friends in memory of Rebecca, a member of the Mary Washington College Class of 1972, this scholarship is awarded annually to a rising senior majoring in Biology who has an exemplary academic record.

Thomas Howard and Elizabeth Merchant Tardy Endowment Fund. The income from the grant is used primarily to aid students descended from James R. Tardy and his wife, Mary M. Tardy, and from William H. Merchant and his wife, Belle Ashby Merchant. If funds remain, other students in financial need may also be considered for assistance.

Frances Thompson Scholarship. This scholarship is awarded to a student from the Fredericksburg area who is in need of financial assistance and maintains satisfactory academic progress.

Tillery Scholarship. The recipient, a graduate of a public senior high school in in Virginia, must intend to be a residential student at Mary Washington for four years and earn a B.A. or B.S. degree. This $500 scholarship for each of the four years is awarded in recognition of superior academic preparation and potential for achievement. To retain this scholarship, a student must maintain a cumulative grade point average of 2.5 or better during the freshman year and 3.0 or higher in subsequent years. Students must be nominated by their high school principals or guidance counselors before they may apply for their scholarships. The deadline for nominations is January 20.

Aurelia B. Walford Scholarships in Music. Established by the will of the late Aurelia B. Walford, these scholarships are awarded annually to music majors on the basis of academic merit and performance skills.

J. Binford Walford Scholarships in Architecture. Established by the will of the late Aurelia B. Walford, these scholarships are awarded annually to majors in art history, historic preservation, or history who have stated career goals in architecture-related endeavors.

Ruby York Weinbrecht Award. This annual cash award is presented to the outstanding senior library aide as selected by the Library's staff.

Edgar E. Woodward Faculty Children's Scholarship. This annual scholarship is awarded to faculty children enrolled full-time in a degree-seeking program.

Regional Scholars Program. Each spring, selection committees choose up to twenty-five outstanding and promising entering first-year students as Regional Scholars, twenty of whom will come from Virginia's ten Congressional Districts and up to five from among out-of-state nominees. These scholars receive four-year $1,500 honor scholarships in recognition of superior academic preparation and potential for achievement. To retain this scholarship, a student must maintain a grade point average of at least 2.5 during the freshman year and at least 3.0 in subsequent years. Students must be nominated by their high school principals or guidance counselors before they may apply for their scholarships. The deadline for nomination is January 10. An applicant for the scholarship must also be an applicant for admission.

Mary Washington College Anonymous Scholarships. These scholarships are awarded annually to students who need financial assistance and maintain satisfactory academic progress.

State Scholarships. These scholarships are awarded by the College on the basis of demonstrated financial need to regular full-time students who are legal residents of Virginia.

Outstanding Local Senior Award. This award, sponsored by the Fredericksburg Chapter of the Mary Washington College Alumni Association, is presented to the senior from the Fredericksburg area who has the highest academic average.

Faculty Children's Scholarship Fund. This scholarship has been created for the purpose of offering financial assistance to children of currently employed, full-time Mary Washington College faculty who may wish to matriculate as full-time degree-seeking, undergraduates at the College. These awards will be made without any consideration to financial need or special academic qualifications and with the proviso that the recipients maintain academic good standing and full-time, degree-seeking status. Applicants must write a letter of interest to apply for the scholarship by May 15. Letters are to be directed to the Office of Financial Aid.

Mathematics/Science and Foreign Language Scholarships and Loans. Juniors and seniors majoring in approved mathematics, science education, or language programs with a cumulative grade point average of at least 2.7 may be nominated.

Campus Life

★ ★ ★ ★ ★

The events which define life at Mary Washington College range from the formal to the casual. Each academic year begins with a Convocation at which new students are inducted into the College community by taking the Honor Pledge. As the year unfolds, all students celebrate Hallowe'ens, Juniors preside over Ring Week, seniors observe 100th Night, and Devil-Goat Day pits freshmen and juniors against sophomores and seniors in a series of games. Each academic year ends with Graduation Ball, and Commencement.

Various artistic activities take place throughout the year. Klein Theatre offers plays and recitals. Dodd Auditorium offers dance programs, concerts, guest artists, and a weekly movie series. The DuPont Galleries present art shows throughout the year. The Student Association sponsors a Poetry and Fiction Reading Series running throughout the academic year; recent guests have included Gwendolyn Brooks, John Barth, Carlos Fuentes, Maya Angelou, Peter Taylor, and Pattiann Rogers. The Campus Center and the Underground offer comedians or bands nearly every week, and Class Council sponsors a formal dance each semester.

The Alumni Association sponsors an annual Distinguished Visitor in Residence who teaches classes and offers at least one general address open to the public. In recent years Mary Leakey, Paul Erlich, Joyce Carol Oates, John Kenneth Galbraith, and James J. Kilpatrick have served as Distinguished Visitor. Academic departments and the Center for Historic Preservation regularly invite guests to address classes, the college community, and the general public.

Facilities

Klein Theatre in DuPont Hall, seating 295, provides theatrical sound and lighting systems along with costume and scene construction shops for dramatic productions. Dodd Auditorium, seating 1600, provides sound, lighting, and film projection equipment along with an acoustic shell for concert performances.

The Mary Washington College **library** is one of the finest undergraduate libraries in the Commonwealth. Its resources include some 300,000

cataloged volumes, over 1,500 current magazine and newspaper subscriptions, and an extensive microform collection of newspaper and periodical back issues. A United States Federal Government documents depository, the library receives approximately 13,000 government publications annually. The library's Special Collections room houses the rare books collection, with highlights including a 1496 edition of Pliny's *Naturalis historia*, a 35-volume set of Diderot's *Encyclopedie* published in 1751, and an extensive collection of first and scarce editions of works by and about James Joyce and W.B. Yeats, and the College's Archives.

The library moved into its new building, one of the largest on the campus, in 1989. Several hundred individual desks and a half-dozen small-group rooms provide ample study space. A large classroom, used by the library's active instruction program, has facilities for training students to use the library's automated systems. The library provides coin-operated copiers, microform reader-printers, and a bill changer. Electric typewriters and personal computers are also available for students' use.

Library procedures, including circulation and the catalogue, are fully computerized. Some half-dozen databases, mostly bibliographic, are available on compact disk; online database searches through DIALOG are also available. Through the Southeastern Library Network, the library has access to a database of over 14 million bibliographic records for cataloging and processing library materials and for interlibrary loan transactions. During academic sessions the library is open until 11:00 p.m. five nights a week, with regular weekend hours.

The **Audio Visual Center**, located in Chandler Hall, provides equipment and materials to support and enhance the instructional programs and student activities of the College. A wide variety of equipment is available for use in each academic building or can be borrowed from the Center. Material production such as slide and transparency making, video and audio dubbing, and laminating are also available through the Center.

The Center operates Chandler 102 (a 44-seat theater/lecture room), and oversees the technical operation of Monroe 104 (a 200-seat lecture/classroom), and Dodd Auditorium. The Center is open from 8:00 a.m. to 5:00 p.m., Monday-Friday throughout the year and from 8:00 a.m. to 10:00 p.m., Monday-Thursday during the fall and spring semesters.

Because"computer literacy" has become necessary for anyone with a sound college education, the **Academic Computing Center** provides access to large and small computer systems for both faculty and students. Combs Science Hall houses a Hewlett-Packard 850 minicomputer accessible through terminals or by MODEM. The HP 850 uses the UNIX operating system and supports various programming languages, statistical software, and simulation languages. The Computer Science Department uses Hewlett-Packard scientific workstations in their classes, along with a Prime EXL supermicrocomputer networked to the HP 850 by ethernet. Academic Computing also provides MS-DOS (IBM compatible) and Apple Macintosh microcomputers through a public ac-

cess facility in the basement of Seacobeck Hall. Individuals using this facility may obtain software from the College bookstore at low cost. Academic Computing also offers workshops and individual student consultants for users needing assistance.

In 1988, Mary Washington College opened a **Computer Access Center for the Visually Impaired,** designed to provide access for students, faculty, and staff unable to use conventional computers. The equipment includes a 19-inch monitor to enlarge characters from normal size up to five inches; a closed-circuit television to display printed materials on the computer screen; a sophisticated speech synthesizer to read aloud whatever is on the screen; and a laser printer to produce standard or enlarged print.

The Center also has catalogs and resource lists for recorded, braille, and large-print textbooks as well various aids and appliances. Further information is available from the Director of the Center, Roger J. Bourdon, Professor of History (703/899-4612).

The College **police force** has ten full-time officers and provides round-the-clock full-service protection to the campus community. The authority, responsibility, and training of its officers are the same as those of any other police officer in the Commonwealth.

Student Life

The focus of daily student life at the College is the **Campus Center**, opened in 1989. It is both a central gathering place for students and a versatile facility for organized activities. Student mailboxes, lounges, lockers for commuting students, the Eagles' Nest, and offices for student organizations generate a constant flow of students, faculty, and staff through the Center. Meetings, speakers, and receptions are regularly scheduled in the meeting rooms and lounges. Musicians and other entertainers perform in both the intimate setting of the Eagles' Nest and in the Great Hall.

The **Student Association** provides internal governance for student life. Its executive officers and the members of the Student Senate are elected each year. They appoint students to serve on a variety of student committees, on nearly all faculty and administration committees, and as representatives in the academic departments of the College. The Student Association recognizes and funds over forty political, religious, social, and cultural clubs interested in a wide range of activities. Most academic departments also support interest clubs or honoraries.

A second elected group, **Class Council**, is responsible for social programming and many of the College's traditional events.

The **Honor Council**, consisting of elected representatives from each class, presides over the Honor System and reports directly to the College's Board of Visitors.

The **Board of Publications and Broadcasting** oversees all official student publications and the campus radio station. The College has a weekly newspaper, *The Bullet*; a yearbook, *The Battlefield*; a literary magazine, *Aubade*; and an opinion journal, *Polemic*. All publications and the campus radio station are completely student-run.

The College **Program Board** sponsors a wide variety of informal entertainment events.

Working in close cooperation with the Student Association, the **Office of the Dean of Students** supervises residential life at the College and provides support services directly concerned with student health and well-being.

Twenty-two residence halls and houses offer students a wide choice of on-campus housing. Language, leadership, and academic/quiet houses, as well as large single-sex and coeducational halls, are available. Each is staffed with a full-time residence director or head resident and upper-class students trained to assist students with college life.

The College **Health Center** offers students outpatient medical services as well as short-term inpatient care in its 13-bed facility. A full-time physician, 24-hour nursing staff, and consulting service from area specialists give students a comprehensive medical resource.

Staffed by trained counselors, the **Counseling Center** assists students with their personal development. Whether the student has test anxiety, difficulty with an interpersonal relationship, or just a need to talk, the Counseling Center staff is ready to help. Counseling is available to all full-time students without fee . All consultation and counseling is confidential, in accord with usual legal and ethical guidelines.

Athletics

A healthy intramural athletic program provides opportunities for competition in a full range of sports throughout the year. The College also has men's and women's NCAA Division III teams for intermural competition. Men's intercollegiate teams compete in baseball, basketball, cross country, lacrosse, riding, soccer, swimming, tennis, water polo, and indoor and outdoor track and field. Women have intercollegiate teams in basketball, cross country, field hockey, lacrosse, riding, soccer, softball, swimming, tennis, volleyball, water polo, and indoor and outdoor track and field. In 1988-89 five teams participated in post-season competition, three of them going on to national competition. The College has produced 14 All-American athletes in the past two years, and two national championship teams in the current decade.

A modern physical education building provides a basketball gymnasium, dance studios, an intercollegiate swimming pool (with one- and three-meter diving boards and electronic touch time system), an auxiliary gymnasium, an 8,000-square-foot weight training room, a handball-racquetball court, three competitive volleyball courts, two indoor batting cages, an athletic training room, and a multi-purpose activities room. Outdoor facilities include fields for baseball, soccer, lacrosse, softball, and field hockey; cross country courses and a running trail; 14 tennis courts (including a new 10-court, lighted complex); and a new 8-lane, 400-meter Rubaturf all-weather track.

Cultural and Racial Diversity

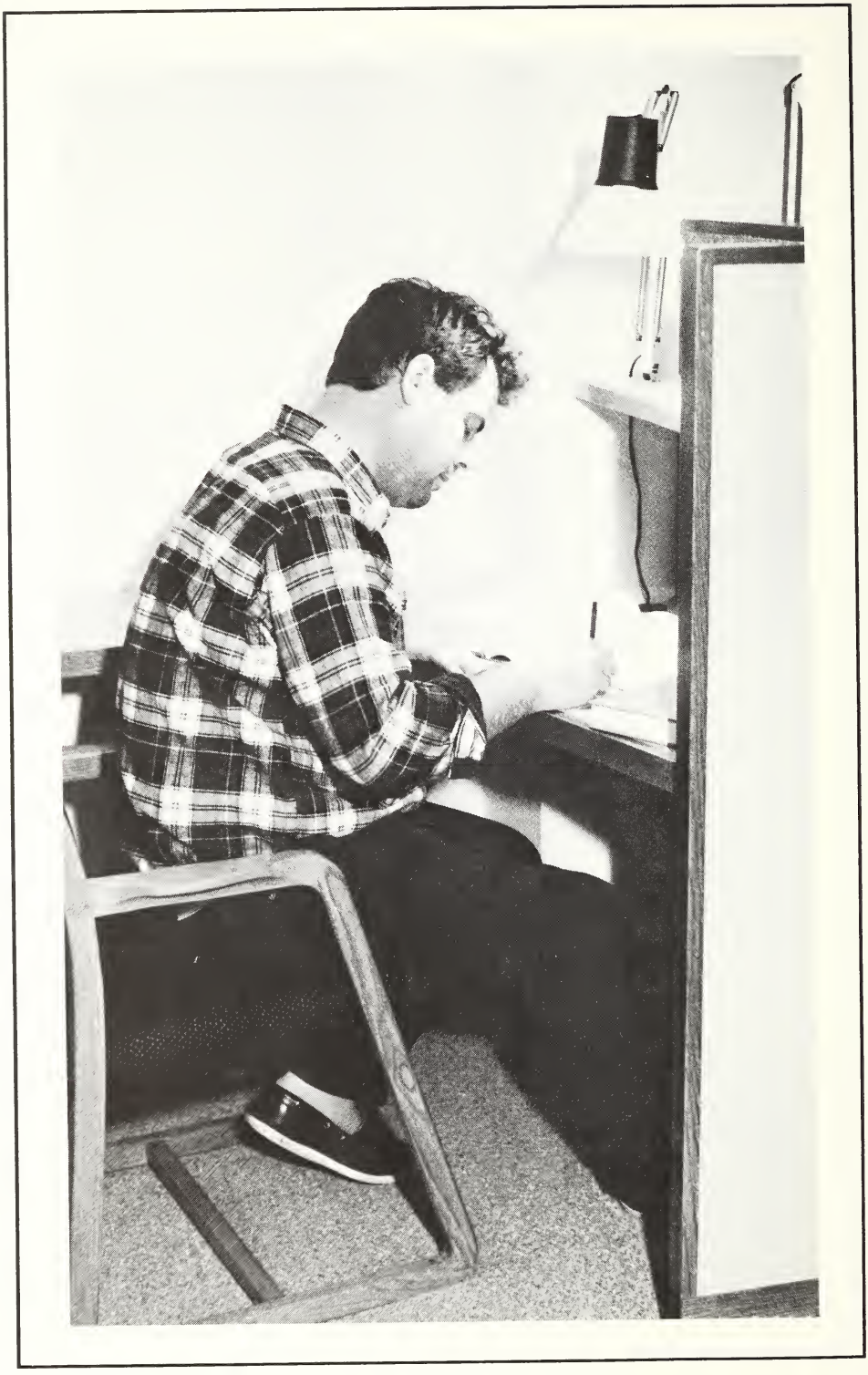
The College actively seeks cultural and racial diversity in its staff, its faculty, its students, its curriculum, and its daily life. A number of specific initiatives support that goal.

The Office of Minority Services is specifically concerned with the academic and social well-being of minority students. It supports advising, leadership, tutoring, and cultural programs, and maintains links to minority segments of the local community.

Four programs assist minority students before they start college. Mary Washington has sponsored an Upward Bound Project for a number of years. The James Farmer Scholars, named after the prominent Civil Rights leader who teaches at Mary Washington, are Black middle school students in the Fredericksburg area who participate in a five-year enrichment program designed to equip and encourage them to continue their educations. Project SOAR provides similar support for a group of junior high school students in Fairfax county. The Summer Transition Program each year prepares a select group of Black students for their first year at the College. The Black Student Scholarship program provides significant support to any qualified Black student who enrolls in the College.

In addition to its formal Statement on Community Values, its racial and sexual harassment policy, and its AAEEO Committee, the College uses various mechanisms to foster diversity. For example, the faculty recently undertook a two-year Race and Gender project to insure that the curriculum adequately explores diversity of race and gender; in the 1988-89 academic year, every College employee attended a two-day workshop on sensitivity to racial and cultural diversity; and orientation of new staff, faculty, and students stresses the College's concern for diversity and tolerance. A permanent group, The Black Faculty and Staff Association, provides both a forum for discussing relevant issues and a way of advising the College. The Asian Students Association and the Black Students Association play similar roles for students.

Through these efforts the College is making significant progress in achieving greater diversity in its population and a full measure of respect for and study of the cultural traditions of minority groups.



Academic Life

★★★★★

Mary Washington College awards four degrees: Bachelor of Arts, Bachelor of Science, Bachelor of Liberal Studies, and Master of Arts in Liberal Studies. The Bachelors of Arts and Science degrees are traditional programs for full-time students. The Bachelor of Liberal Studies is designed specifically for adults returning to college either part- or full-time. The Master of Arts in Liberal Studies is for part-time, commuting adults.

The College also allows those who have completed degrees elsewhere to enroll for second degrees or second majors.

Bachelor of Arts, Bachelor of Science

Requirements for these degrees are divided into three basic categories: General Education courses, the major program, and elective courses. The General Education requirements acquaint the student with the various areas of study and modes of thought in the liberal arts and sciences. The major program allows a student to investigate one discipline (or several in an interdisciplinary major) in depth. Although students must major in an academic discipline, they may also work toward a specific career or professional goal. Both major programs and career opportunities are outlined in the following sections.

Together, the General Education requirements and the major program account for approximately one-half to two-thirds of the four-year course of study. Though students decide individually how best to fulfill the rest of their undergraduate curriculum, the College encourages a rich and diverse total program. Options open to the student include individual study, student-designed special majors, pass/fail courses, and double majors.

Making decisions is a part of one's education at Mary Washington. While faculty members help students select courses and major programs of study, the final decisions are the student's own. Students are responsible for assuring that they fulfill all degree requirements.

B.A./B.S. Regular Programs

The choice of major program determines which degree one gets. Both the B.A. and B.S. degrees require 122 credits for completion. Both degrees also require an overall cumulative grade point average of at least 2.00 (equivalent to a C average) on Mary Washington coursework, as well as a cumulative grade point average of at least 2.00 in the major program.

To be considered a degree candidate, a student must earn at least thirty academic credits at Mary Washington College, including at least half the major program. Students must also earn at least fifteen of the last twenty-one credits of their degree programs at Mary Washington.

General Education Requirements

Students must complete all General Education requirements unless exempted. The content of a course, rather than the department in which it is taught, determines which General Education requirements it fulfills. The same course may satisfy several requirements and/or be included in the major program. The specific list of General Education courses changes periodically. An updated list appears in the *Schedule of Courses*, published for advanced registration each semester.

Foreign Language. A student must demonstrate proficiency by completing the equivalent of the intermediate college course in a foreign language, modern or ancient. Students who, at admission, present four units of a single language through level IV have satisfied the language requirement. Students may also ask a language department to declare proficiency on the basis of individual records. Students whose native language is not English are exempt from this requirement after successfully completing English 101, Writing Workshop, or being declared exempt from that course.

Writing. The Writing Intensive Program is a product of three faculty beliefs: (1) that a liberal arts education should help make students competent writers; (2) that writing is itself a tool of learning; and (3) that all academic departments share responsibility for promoting good writing. Every student must successfully complete at least five courses designated "Writing Intensive." These courses teach writing appropriate to the subject matter and demand a minimum number of pages of clear prose in short essays, laboratory reports, or long papers. Writing is assigned and returned with constructive comments throughout the semester. During their freshman year, most students must fulfill the WI requirement by taking English 101, Writing Workshop. Thereafter, students can choose from WI courses offered by almost every department on campus. The number of Writing Intensive courses required of a transfer student is determined when the student is admitted to the College.

Physical Education. A minimum of 2 credits of Physical Education or 100-level Dance, taken in different semesters, must be completed successfully; and a maximum of 8 credits in Physical Education may be included in the 120 credits required for graduation.

Natural World and Laboratory Experience (8 credits). Courses in the Natural World stress the scientific method and the need for logical thought, precision, objectivity, and unbiased observation. They also impart a basic knowledge of the particular subject and refer to applications of research pertinent to society at large. Such courses introduce a discipline to prospective majors, but they also address the impact of science and scientific research on the larger social world. To fulfill this requirement students must take a two-semester, vertically-building sequence of laboratory courses.

Human World (9 credits divided between at least two disciplines). Courses in the Human World help the student see how research concerning human behavior, whether individual or social, is designed, carried out, and evaluated. The courses are analytical, explaining as well as describing human behavior, and the explanations must go beyond surveying current views by setting them into an historical context.

Abstract Thought (6 credits, at least 3 in mathematics). Courses in Abstract Thought describe any one of several self-contained systems of analysis. The courses concern themselves with the ways one establishes the validity of statements and organizes them into logical sequences. Such courses are found in disciplines ranging from music, through mathematics and philosophy, to business.

Intellectual Frameworks (9 credits divided between at least two disciplines). Courses in Intellectual Frameworks identify and explore patterns in time. They might examine the ways that the cultural values of one era interact, or they might trace a common element through several eras. These courses introduce students to interactions among concepts, show that ideas occur in discernible systems, and that concepts are related chronologically within and across cultures. They are critical rather than merely descriptive in emphasis, showing both the origins and consequences of particular ideas. The courses compare different systems of ideas or stress an historical view of a single system.

Modes of Creativity (9 credits, divided between at least two disciplines; 3 credits must be in literature). Courses in Modes of Creativity require students to evaluate their own responses to works of art, judge the responses of others, and compare the judgments of the past to those of the present. The courses introduce students to recognition of form, encourage respect for the effect of medium upon form, and illuminate the relationship between artistic expression and cultural context. Such courses are found in art history, drama, dance, music, studio art, and the various literature departments.

Major Program

A major program within a single discipline requires at least thirty, but no more than forty, credits. Students must take at least one-half of the major program at Mary Washington, earning a grade point average of 2.00 in the courses. As well as majors in the traditional arts and sciences disciplines, the College offers interdisciplinary and special major programs. Many students complete two major programs to satisfy diverse

personal interests. Requirements for the major programs appear in the department entries of the *Catalogue.*

A student and faculty adviser may also design an individual major program by selecting, from two or more departments, courses that define a field of concentration. This major must be approved by the Committee on Special Programs during the final semester of the student's sophomore year. Examples of Special Majors the committee has approved include general liberal arts and sciences programs in Medieval Studies, Linguistics, Classical and General Archaeology, Ethnology, Italian Studies, Asian Studies, Latin-American Studies, Russian Studies, Urban Affairs, and Women's Studies.

Electives

Students must complete enough additional courses to total 120 semester credits, exclusive of the required one year (two credits) of physical education. No student in a regular B. A. or B. S. program may count more than 55 credits in a single discipline toward the 122 credits required for graduation.

B.A./B.S. Alternate Program

Students with exceptional backgrounds and special interests may apply for the Alternate Degree Program, which allows for greater concentration than the regular degree program. In an alternate degree program, up to one-half of the coursework may be in a single discipline, and up to three-quarters in a single area. At least one-quarter of the total credits must come from an area other than the one which includes the major discipline. All General Education requirements still apply. Students interested in the alternate degree program should apply to the Committee on Special Programs before the beginning of the junior year.

Bachelor of Liberal Studies Program

The Bachelor of Liberal Studies is designed for men and women, 24 years of age and older. Credit previously earned at other institutions, or through CLEP, and learning acquired through life or work experience may be converted to college credit.

The candidate for the Bachelor of Liberal Studies degree works closely with a faculty mentor. Together, they design a learning contract that incorporates the student's past experience and present goals. Students proceed at their own pace toward completion of the program.

Students in the B.A./B.S. program and who have completed more than 30 credits at the College may not enroll in the BLS program.

The Bachelor of Liberal Studies degree requires 120 semester hours, distributed in three categories: general education, electives and core area. The student must demonstrate competence in English and earn at least 30 credits in graded classroom work. At least 30 credits must be taken at Mary Washington College after admission to the program. A quality-point average of 2.00 on all Mary Washington College work is also required.

Some students are required to complete BLST 0100, Orientation Seminar (one credit). Others may wish to enroll in BLST 0101, Portfolio Development (one credit), for assistance in developing portfolios that document learning gained through life and work for possible conversion to academic credit.

General Education. Courses totaling at least six credits are required in each of the following areas, and no course may be scored in more than one category.

Humanities — art appreciation, art history, classics, drama, history of film, literature, music appreciation, music history, philosophy, religion.

Social Sciences — anthropology, economics, geography, history, linguistics, political science, psychology, sociology.

Natural Science and Mathematics — astronomy, biology, chemistry, geology, mathematics, physics.

Communication Arts — art theory, computer language, creative writing, foreign language, logic, music theory, performing arts, photography, speech, studio arts.

Electives. A maximum of 56 credits may be taken in electives.

Core Area. Forty credits must be taken in a core area, which consists of a coherent group of courses organized to create a specialty or concentration. A student may select any liberal arts major offered by the College, or create an interdisciplinary concentration from the offerings of several departments. Students must earn a quality point average of 2.0 in this area, and at least one-half of the core must be upper level courses.

Competence in English Composition. Each student must demonstrate competence in English Composition. This may be accomplished by taking English 101, Writing Workshop, completing a comparable writing course, or winning certification from the Department of English, Linguistics, and Speech.

Classroom Experience. At least 30 credits must be earned by direct classroom experience at Mary Washington or another institution.

Residence Credit or Equivalent. Thirty semester hours must be completed after admission to the Bachelor of Liberal Studies Program at Mary Washington, or in a program supervised or approved by the College at another institution within the Central Virginia Consortium.

Master of Arts in Liberal Studies

The Master of Arts in Liberal Studies (MALS) is a flexible interdisciplinary graduate program in the liberal arts intended as a terminal degree for adults interested in analyzing social and cultural issues central to Western civilization.

The program requires 30 graduate credit hours distributed in four categories: initial courses; colloquia; electives; and individual study. All

students take Ideas and Movements of the Western World, a two-semester team-taught survey of major trends in thought, the arts, history, and social theory from the Ancient World to the present. Students must also take any two of the several colloquia in the program's offerings. These are multi-disciplinary explorations of problems too complex for any single discipline to handle successfully. Each colloquium is taught by a faculty team of two or three and involves material from the humanities, the social sciences, and the sciences. Fifteen semester hours fill the elective requirement. These may be chosen from a range of courses in the various disciplines, or they may focus on a single area. Three semester hours of directed study complete the program. Students must maintain a 3.0 semester average in the courses used to fulfill the degree requirements.

Admission and Transfer Credit. Any student holding a Bachelor's degree from an accredited institution, with a B average earned in the last two years of work, may apply. A student with a lower average may apply for conditional status. After completing the initial courses (MALS 511 and 512) with a B average, the conditional student may become a candidate for the degree.

All candidates for admission are interviewed by the director of the program.

Students with appropriate graduate credit elsewhere may transfer up to six hours to count as electives in the MALS. Students with credit in a graduate liberal studies program having parallel requirements may transfer an additional six hours of appropriate credit. All transfer hours must be approved by the director of the program.

No more than a combined total of six hours of credit counting toward the degree may come from ordinary transfer credit, independent study, and undergraduate courses taken for graduate credit.

Second Major or Second Degree

A student who has earned a bachelor's degree from Mary Washington College and wishes to pursue further undergraduate work may either complete an additional major and have it noted on the permanent record (with the date of completion) or earn a second degree if it is different from the first (for example, a B. A.or BLS if the first degree was a B. S.). For the second degree, the student must earn at least thirty additional credits at Mary Washington , including the major program or core area and general education requirements in the current *Catalogue*

A student who earned the first degree at another institution must enter Mary Washington as a transfer student, then complete the major program or core area and general education requirements of the second degree as defined in the current *Catalogue.*

Academic Services

The College supports the educational progress of each student in ways ranging from academic advising to specific programs and centers for career planning, study abroad, and the development of writing skills.

Academic Advising changes as students move through their degree programs. Freshmen and new transfer students are assigned to 50/50 advising groups led by a team consisting of one professor or administrator and one or two upper-level students. When students declare majors, usually during the sophomore year, they are assigned advisers within the appropriate department.

The College also maintains specialized advisers in health-related fields, pre-law, and teacher certification.

The health sciences constitute a variety of paramedical professions providing health care. The basic liberal arts and science courses offered at Mary Washington prepare students for entering nursing, physical therapy, dental hygiene, and pharmacy. During the freshman year students must give careful attention to the admission requirements of professional schools. A career adviser is available to help students select courses that meet these requirements and prepare for the relevant professional qualification examination. Admission to professional institutions is, of course, very competitive and depends on academic performance, a personal interview, and scores on qualifying examinations.

Students considering a medical career may concentrate their studies in any major field. Medical, dental, and veterinary schools accept students who have made a commitment to a major field, and have demonstrated superior achievement within it as well as in their overall academic programs. Although most of the pre-medical, pre-dental, and pre-veterinary students at the College major in one of the sciences, usually biology or chemistry, a student choosing to major in the humanities or social sciences, may take the necessary science courses as electives. Since admission to medical, dental, or veterinary school is highly selective, it is important for a student to choose a major that can lead to an alternate career should his or her application be unsuccessful. A major program in biology, chemistry, or other science will provide opportunities for careers in medically related fields such as biochemistry, clinical chemistry, medical technology, pharmacology, medicinal chemistry, biomedical engineering, and forensic science.

The *Premedical Advisory Board* at the College assists each student by collecting biographical data and faculty recommendations; through counseling for Medical College Admissions Test (MCAT) and Dental Admissions Test (DAT); and by preparing an integrated, institutional recommendation for the student to be sent to medical and dental schools. The institutional recommendation is based on the student's record, faculty recommendations, and the Board's estimate of the student as gained through an interview.

The *Pre-Law* advising program provides guidelines for students interested in entering law school. While there is no standard pre-law curriculum at the College, the pre-law adviser helps students select courses

that meet their individual needs and foster skills necessary to the legal profession. Students are encouraged to enroll in courses that develop written and oral communication as well as precise reasoning.

The *Teacher Certification* programs at Mary Washington are approved by the Virginia State Department of Education and the National Association of State Directors of Teacher Education and Certification. Students who complete an approved program qualify for certification in all the states with which Virginia has reciprocity agreements. Students major in one of the traditional academic disciplines and take professional courses as electives. They have advisers both in their major discipline and in the College's department of education. (See also the offerings listed under Department of Education.)

Transfer Courses and Study Abroad

Students admitted to degree programs at Mary Washington may use courses taken at other colleges and universities to meet Mary Washington degree requirements by obtaining prior approval from the College's Director of Academic Advising. All courses must be approved in advance for transfer credit. Courses to be counted in the major program must also be approved by the student's major adviser, who helps the student design a program related to major requirements at Mary Washington.

The procedure for earning credits at colleges and universities abroad is basically the same as that for earning credits at other institutions in the United States, except that earlier planning is necessary; usually the planning starts a calendar year beforehand. Most students spend their time abroad with a program sponsored by an American institution, although a few apply directly to the foreign university. With the help of faculty advisers and the Office of Academic Services, interested students can investigate the wide range of available programs. Since some of the courses taken will ordinarily fulfill requirements in the major program, the student's major adviser should be involved in planning the semester or year abroad.

Career Services

The Office of Career Services helps students and alumni explore their skills, interests, and values as well as their educational and occupational options. Career Services offers programs for freshmen, sophomores, juniors, seniors, graduate students, and alumni. The Career Development Workshop and individual counseling teach a process to decide on majors and career options.

The Office also maintains a Career Resource Center containing numerous books and articles about a variety of occupational areas as well as directories of relevant organizations. The Career Resource Center also houses information on various graduate programs as well as full-time and part-time job listings. An *Informational Interview Notebook* lists alumni who are willing to discuss their career fields. Career panels present alumni describing their occupations and answering students' questions. Career Day, held in the fall, provides an opportunity to dis-

cuss career opportunities with representatives from various employers.

Periodic workshops on resumé writing, interviewing skills, and job search strategies as well as mock interviews help students and alumni with job searches. Through the On-campus Recruiting program, graduating students interview with organizations hiring for full-time positions. The Office also maintains credential files for students and alumni.

Academic Internships

The College offers a program of academic internships in which qualified juniors and seniors work in off-campus settings. Cooperating academic departments supervise the internships and award credit for them.

The Office of Career Services coordinates internships, maintains lists of available placements, and helps students develop new internships to satisfy individual interests.

Students have done internships with the federal and local government, businesses, non-profit organizations, radio and television stations, newspapers, law firms, museums, artists, veterinarians, and others. A sampling of duties includes writing and editing a newsletter, conducting legal and social science research, making jewelry, counseling, reviewing Medicaid cases, interviewing for personnel offices, creating databases, preparing bank reconciliations, organizing fundraisers, running diagnostic tests on animals, and conducting market research.

The College's location near the capitals of the nation and the Commonwealth provides unique opportunities for internships in government and politics. The City of Fredericksburg offers opportunities for students particularly interested in studio art, history and historic preservation, journalism, and local government.

The Writing Center

Part of the college-wide Writing Intensive Program, the Writing Center is open to all Mary Washington students. It expresses the College's belief in writing competence as an essential ingredient of a liberal arts education. Operating within the Honor Code, the Writing Center offers free tutorial assistance to students from all majors both for course assignments and for personal writing needs.

The Writing Center works with student writers at every skill level to improve their writing performance. Staffed by peer tutors, the Center provides advice and assistance in clarifying assignments, getting started on papers, narrowing topics, achieving unity and coherence, developing ideas, reviewing troublesome parts of papers, understanding and correcting recurring grammatical and punctuation errors, proofreading, and overcoming writer's block. Tutors can help writers before they begin a paper, while they compose a paper, and after the professor has graded it. The Writing Center welcomes students writing research papers, short essays, letters of application, resumés, creative work, lab reports, and letters home. It also provides access to typewriters, books on writing, and word processors, as well as assistance in using these writing tools. The staff conducts several workshops each year on writing skills important to success in college work.

Academic Records

The College keeps an official academic record for each student containing all coursework taken, grades earned, grade point average, and notes on the student's academic status. Access to academic records is allowed in accordance with the Family Educational Rights and Privacy Act as amended in 1974. Further details regarding academic records and transcripts can be found in the current edition of the *Student Handbook.*

Academic Policies and Procedures

The *Dictionary of Academic Regulations*, published annually by the Office of Academic Services, states the academic policies and procedures of the College. The Office of Graduate and Extended Programs publishes supplements covering unique provisions of the Bachelor's and Master's of Liberal Studies. The *Student Handbook*, issued by the Dean of Students, covers non-academic policies. Changes in policy or procedure are announced in *This Week*, the official campus newsletter. These documents, as well as the college *Catalogue*, are for the convenience of students, faculty, and staff, but none should be interpreted as an irrevocable contract. Each student is responsible for noting changes in policy or procedures affecting his or her program and adjusting the program accordingly. Any student for whom a change causes significant problems should ask the Dean of the College for a written waiver or variation. Final responsibility for meeting all degree requirements rests with the student.

Continuing at the College

Each spring, degree-seeking students must indicate their intention to enroll for the Fall semester by returning a form mailed early in the spring and making a deposit toward their fees for the next semester.

Although the College makes every effort to mail enrolled students the forms necessary for continuing, each student is responsible for obtaining and filing the Declaration to Continue. The forms and instructions are available from the Office of Admissions and Financial Aid.

Withdrawing from the College

A student who wishes to withdraw from the College during a semester must notify the Office of Student Records in person, and, if a minor, must have the written consent of a parent or guardian. The student should also meet with an academic adviser in the Office of Academic Services.

Grading

Academic performance in any course is rated according to the following system:

A	unusual excellence
B	work distinctly above average
C	work of average or medium quality
D	the lowest passing mark, work of below average quality
F	failure (result: no credit in the course)
AP	testing service examination passed (advanced placement)
CH	challenge examination passed
CI	test incomplete (test failed for credit-by-examination)
CR	test out (credit-by-examination)
FA	failure in a pass/fail course, (result: no credit in course)
FW	withdraw failing from a pass/fail course
G	delayed grade
H	holding grade (temporarily issued when instructor has not assigned a final grade)
I	incomplete (illness or emergency in the final portion of a semester has prevented the student from finishing the course.)
IA	incomplete, as above, in a pass/fail course
PA	pass in a pass/fail course
PW	withdraw passing from a pass/fail course
SA	satisfactory in a physical education or 100-level Dance course
UN	unsatisfactory in a physical education or 100-level Dance course (result: no credit in the course)
WF	withdraw failing from a graded course
WP	withdraw passing from a graded course.

Grade-Point Average. Grade–point averages are computed only on courses taken at Mary Washington. Each grade, A through D, carries a numeric value which, when multiplied by the number of course credits, gives the number of grade points for the course. A grade of "A" carries four, "B" carries three, "C" carries two, and "D" carries one. So a three-credit course with a grade of "A" provides 12 grade points; a four-credit course with a grade of "A" provides 16 grade points; and so on.

The student's grade-point average is computed by dividing the total number of graded credits attempted into the total grade points earned. On the grade report the units attempted do not include credit-by-examination, transfer credits, physical education credits, or pass/fail credits passed. They do, however, include units for all graded and pass/fail courses failed.

Mid-Semester Progress Reports. In the middle of each semester students are notified of their standing in every course with the following notation: S for satisfactory; U for unsatisfactory; and N if no determination of progress is possible at the time. Though neither entered on a stu-

dent's permanent record nor sent to parents or guardians, mid-semester notifications do go to the Office of Academic Services and to the student's adviser. Because a U is a warning that significant improvement is needed, the student should consult instructors and advisers for assistance.

Academic Probation and Suspension

Probation and suspension warn students that they are not doing satisfactory work, stimulate them to improve their performance, or, finally, serve notice that the institution does not choose to allow them to continue because of the small likelihood that they will finish successfully.

The academic progress of each full-time student is evaluated at the end of the fall and spring semesters, and at the end of the summer if the student has taken 12 or more graded credits during the summer. The progress of a part-time student is evaluated whenever his or her total number of graded credits increases by 12 or more.

Probation. A student is placed on probation whenever the student's Grade Point Average falls below 2.00. A student on probation may continue at the College if he or she makes acceptable progress toward a 2.00 GPA, as defined by a table published in the *Dictionary of Academic Regulations.*

Suspension. Students who do not make satisfactory progress while on probation are suspended. A suspended student may not register for any classes at Mary Washington (semester or summer) until the term of suspension expires, and courses taken at another institution while a student is on suspension are not accepted for transfer credit. A detailed description of the Suspension policy is available in the *Dictionary of Academic Regulations.*

Readmission

When a student requests study leave or a personal leave of absence, or withdraws during a semester, the College will decide whether or not to readmit the student automatically. Those granted automatic readmission apply directly to the Office of Admissions when they are ready to return. Those not granted automatic readmission must apply to the Readmission Board by October 1 to be considered for the spring semester and by March 1 for the fall semester.

Student Outcomes Assessment

Mary Washington College has adopted a comprehensive plan for evaluating the impact of its programs and services on its students. Developed in response to guidelines set forth by the State Council of Higher Education and the Southern Association of Colleges and Schools, the assessment program examines the extent to which the College is meeting its intended goals for its students. The program includes four components: General Education, Major Programs, Student Surveys, and Alumni Surveys.

The College's commitment to assessing its effectiveness requires the participation of students. Entering freshmen and graduating seniors are the focus of assessing the general education curriculum. Graduating seniors may also be required by their major departments to participate in assessing the effectiveness of major programs. Students will receive sufficient advance notice regarding testing dates, times, and locations. Failure to take part in the assessment activities may result in sanctions against the student.

Assessment results are for evaluating programs, not individuals. How a student does on outcomes assessment tests has no effect on the student's academic standing. Although the data collected is maintained in the College's computer database, it is not included in official transcripts, or used for any purpose other than comparative analysis.

The long-range goals of outcomes assessment are to improve on the College's shortcomings and build upon its strengths. Only by examining closely the effects of what the College does can the College become stronger.

Student Achievement

The President's List

At the close of a semester's grading period, each student who has completed at least twelve credits of new course work with a grade-point average of 4.00 on that work earns a place on the President's List of Honor Students for the semester.

The Dean's List

At the close of a semester's grading period, each student who has completed at least twelve credits of new course work with a grade-point average of 3.50 to 3.99 on that work earns a place on the Dean's List of Honor Students for the semester.

Intermediate Honors

Intermediate Honors are awarded to students who achieve a grade-point average of 3.75 or higher in their first 56 credits earned at Mary Washington College, at least 44 of which must be graded credits.

Final Honors

At Commencement, Final Honors are awarded to students who achieve a grade-point average of 3.75 or higher in their last 56 credits earned at Mary Washington College, at least 44 of which must be graded credits.

Phi Beta Kappa

Outstanding students may be elected to Phi Beta Kappa in the junior or senior year. Selection is made by the members of the Mary Washington College Chapter of Phi Beta Kappa.

Departmental Honors

Each department establishes its own requirements for honors projects or theses. During the junior year, interested students should consult with the chair of the major department for details. Awards of departmental honors are announced at Commencement.

Academic Distinction

The college recognizes the academic attainment of graduating seniors through the awards of Cum Laude, Magna Cum Laude, and Summa Cum Laude, based solely on the student's grade point average at Mary Washington College. The cumulative grade-point average to be attained for each award is as follows: Cum Laude, 3.25-3.49; Magna Cum Laude, 3.50-3.74; Summa Cum Laude, 3.75 or higher. To graduate with Academic Distinction a student must earn at least sixty Mary Washington College credits on which grade points can be computed.

Colgate W. Darden, Jr. Award

Established in 1960, this award honors Colgate W. Darden, Jr., President of the University of Virginia from 1947 to 1959. It consists of a medal designed by Gaetano Cecere, formerly of the Department of Art, and a cash sum. It is awarded to the senior having the highest cumulative grade-point average. To be eligible, a student must have earned at least 94 credits on which grade points can be computed.

Mary Washington College Alumni Award

The Alumni Association presents this award to the member of the graduating class who has shown distinction in academic achievement and outstanding service to the College.

Kiwanis Award

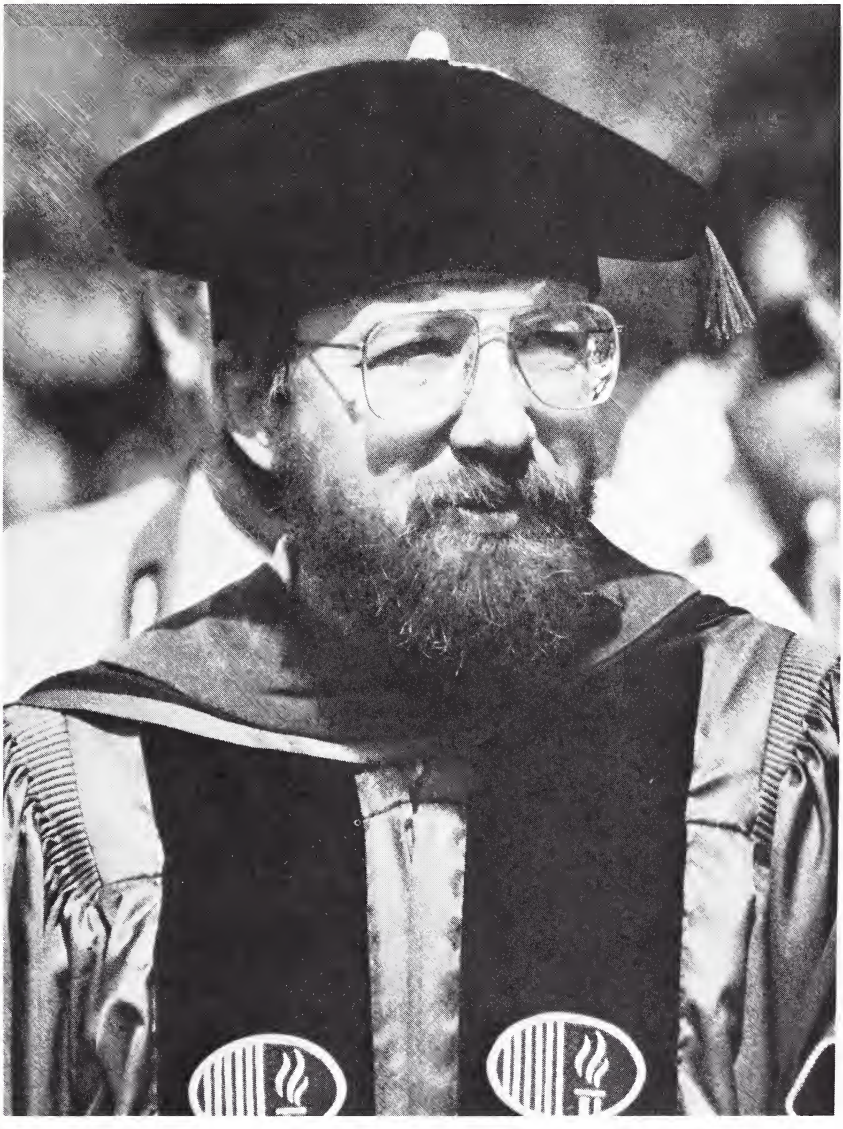
Awarded by the Kiwanis Club of Fredericksburg based upon a student's service leadership and scholarship.

Faculty Achievement

Alumni Association Outstanding Young Faculty Member Award

Supported by the College's Alumni, this award recognizes an outstanding member of the faculty who has been at the College from two to five years.

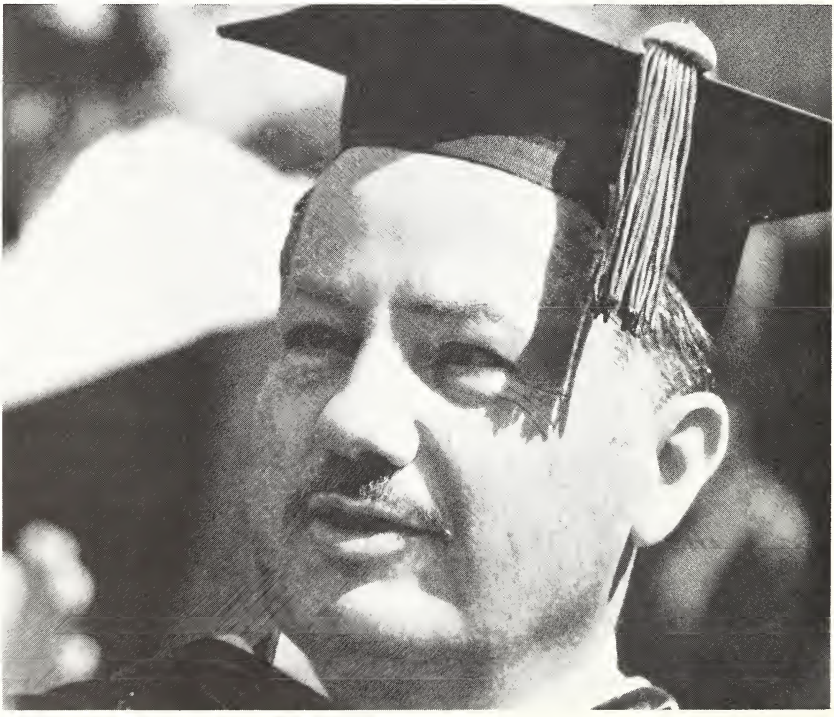
1989 James E. Goehring (Assistant Professor of Religion)



Grellet C. Simpson Award

This award, made possible by an anonymous donor, is presented each year at Commencement to a faculty member in recognition of excellence in undergraduate teaching. Recipients of this award are as follows:

1972 Carmen L. Rivera (Professor of Modern Foreign Languages)
1973 Sidney H. Mitchell (Professor of English)
1974 Anna S. Hoye (Professor of Biology)
1975 Earl G. Insley (Professor of Chemistry)
1976 Donald E. Glover (Professor of English)
1977 Glen R. Thomas (Professor of American Studies)
1978 Nancy H. Mitchell (Professor of English)
1979 Elizabeth A. Clark (Professor of Religion)
1980 Janet G. Zeleznock (Associate Professor of Mathematical Sciences)
1981 Arthur L. Tracy (Associate Professor of History)
1982 Mary W. Pinschmidt (Professor of Biological Sciences)
1983 Joseph C. DiBella (Associate Professor of Art)
1984 Bernard L. Mahoney, Jr. (Professor of Chemistry)
1985 Susan J. Hanna (Professor of English)
1986 George M. Van Sant (Professor of Philosophy)
1987 Marshall E. Bowen (Professor of Geography)
1988 Joanna L. Quann (Associate Professor of Modern Foreign Languages)
1989 Roger J. Bourdon (Professor of History)



Academic Departments and Courses of Study

★★★★★

Mary Washington College, through its twenty-one academic departments, offers twenty-five disciplinary and five interdisciplinary majors. Some departments also offer special programs within the major, such as astronomy within the physics major, cartography within the geography major, and communications within the English program.

Courses numbered 100 through 199 are ordinarily elementary or introductory. Courses numbered 200 through 299 may assume prior study or competence in the subject, acquired in secondary school or in college. Courses numbered 300 through 498 assume either previous course work or special competence in the field. Courses numbered 499 are internships. Individual study courses offer learning opportunities in areas or subjects not covered by regular courses. Courses numbered 500 and above are for graduate students in the MALS program; upper-level undergraduates with the appropriate background may take selected graduate courses with their adviser's and the instructor's approval.

No course may be taken for credit which is a prerequisite for or introductory to a course already completed successfully.

A current prerequisite list is published in the *Schedule of Courses* each semester. Students are responsible for checking their courses against the list before registering.

AMERICAN STUDIES

See Department of History and American Studies

ANTHROPOLOGY

See Department of Sociology and Anthropology

DEPARTMENT OF ART

Joseph G. Dreiss, *Chair, Career Adviser - Art History*
Lorene C. Nickel, *Career Adviser - Studio Art*

Distinguished Professor
Cornelia D. Oliver (B.A., Smith College; A.M., Duke University; Ph.D., The Catholic University of America)

Professors
Joseph C. DiBella (B.A., Rutgers College; M.A., M.F.A., Northern Illinois University. 1983 Simpson Award for Excellence in Teaching)
Barbara S. Meyer (B.A., Trinity University; M. A., University of Maryland; Ph.D., The Johns Hopkins University)
Paul C. Muick (B.F.A., Ohio State University; A. M., University of Chicago; Ph.D., Ohio State University)

Associate Professors
Joseph G. Dreiss (B.A., Fairleigh Dickinson University; M.A., Rutgers University; Ph.D., State University of New York at Binghamton)
Lorene C. Nickel (B.A., Goshen College; M.F.A., University of Florida)

Assistant Professor
Stephen L. Griffin (B.F.A., University of South Dakota; M.F.A., University of Wisconsin)

Cornelia Oliver teaches courses in Greek Art, History of Graphics, Renaissance and Baroque art, and a seminar in Landscape Architecture. Barbara Meyer teaches courses in Roman, Medieval, and Renaissance art, with special interest in Leonardo Da Vinci and Michelangelo. Joseph Dreiss teaches courses in American Art, 18th, 19th, and 20th Century Art, Northern Baroque Art, and a seminar in Contemporary Art and Art Criticism. Joseph DiBella teaches courses in painting, drawing, color theory, and papermaking. Paul Muick teaches three dimensional design and sculpture courses. Lorene Nickel teaches ceramics and textile design courses. Steve Griffin teaches courses in printmaking, drawing, photography, communications design, and a summer course in open air landscape painting.

The department offers two distinct but interrelated majors. Studio Art provides students with the technical and theoretical know-how to produce works of art. Art History offers students the knowledge of works of art already produced, and the research skills necessary to discover new knowledge about them. The department is fully equipped to

serve both majors. The Art History program has a collection of over 65,000 slides, and lecture rooms with sophisticated, optically precise projectors. The Studio Art program has spacious, naturally-lit studios for all the major media as well as a photographic darkroom and a separate studio for majors doing advanced work.

The Art History major explores in chronological sequence the span of Western art within its proper cultural, philosophical and historical context. In addition to slide lectures and the availability of an exceptional art library, students are introduced to art first hand through supervised field trips to Washington, D.C., Baltimore, and Richmond. Regular lectures by visiting art historians keep students abreast of recent developments in the field. An internship program allows students to gain valuable experience and career contacts by working in museums and art institutions in the greater Washington, D.C. and Richmond areas. A Fine Arts Club also provides students with additional opportunities to travel.

The purpose of the Studio Art major is to teach fundamental skills, increase aesthetic sensibilities, and further the student's individual development in ceramics, drawing, painting, printmaking, sculpture, photography and textiles. Individual study allows students to develop advanced and specialized skills in particular media or area. Optional Internships provide students with professional experience. Among the internships available in the immediate community are working at a foundry, a pewter shop, advertising agencies, art galleries, and local government agencies concerned with the arts.

Requirements for the Art History Major

ARTH 114, 115, 201. Thirty (30) additional credits in Art History, including at least one 400-level research-oriented course; one course from each of the following chronological periods: Ancient, Medieval, Renaissance, Baroque and Modern.

Requirements for the Studio Art Major

ARTS 101, 102; 24 additional credits in Studio Art of which at least 12 must be at the 300-400 level; at least one course each in ceramics, painting, printmaking and sculpture. ARTH 115; six additional credits in Art History chosen from 200, 300 or 400 level courses. Junior Portfolio Assessment. Senior Exhibition.

Art History Course Offerings

ARTH 114 - Introduction to the History of Art (3)
Survey of Western architecture, painting and sculpture from the Prehistoric period to 1400.

ARTH 115 - Introduction to the History of Art (3)
Prerequisite: ARTH 114. Survey of Western architecture, painting and sculpture from 1400 to the present.

ARTH 201 - Methods of Art History (1)
Philosophy of art historical methodology; historical background of the discipline; to be taken, when possible, prior to advanced courses in the major.

ARTH 220 - History of Graphics (3)
Prerequisites: ARTH 114, 115. The history of European prints and printmaking from the 15th century to the present. (Does not fulfill any Art History major area requirement).

ARTH 240 - Architectural Principles and Concepts (3)
Prerequisites: ARTH 114. A conceptual approach to architecture, discussing: plans and elevations, materials, techniques, types of structures, architectural decorations, form and function, location, interior space, social-political-economic impact, symbolic meanings, architectural forms of the future and other issues. (Does not fulfill any Art History major area requirement).

ARTH 310 - Greek Art (3)
Prerequisite: ARTH 114. Development of Greek art from the early Iron Age through the Geometric, Archaic, Classical and Hellenistic periods.

ARTH 311 - Roman Art (3)
Prerequisite: ARTH 114. Roman art from the Italo-Etruscan period to the end of the Roman Empire.

ARTH 315, 316 - Gallery & Exhibition Organization &Techniques I and II (3,3)
Prerequisites: ARTH 114, 115 advanced standing in Studio Art or Art History and permission of instructor. This course uses the college gallery as the setting for the theory and practice of exhibiting art to the public. This course does satisfy course requirements for either the Art History or Studio Art majors.

ARTH 323 - Medieval Painting (3)
Prerequisite: ARTH 114. A study of mosaic, fresco, and tempera painting and manuscript illumination principally in France and Italy.

ARTH 324 - Medieval Architecture and Sculpture (3)
Prerequisite: ARTH 114. Sources and formulation of medieval architecture in Europe from the pilgrimage church through the development of the Gothic cathedral, as accompanied by the reemergence of monumental architectural sculpture, from 1000 to 1400.

ARTH 330 - Northern European Art, 1400 to 1600 (3)
Prerequisites: ARTH 114, 115. Painting in the Lowlands, France, and Germany from the late medieval period through the 16th century.

ARTH 331 - Italian Renaissance Painting (3)
Prerequisites: ARTH 114, 115. Painting of the Italian Renaissance, its origins in the social and intellectual climate of the periods.

ARTH 332 - Italian Renaissance Architecture and Sculpture (3)
Prerequisites: ARTH 114, 115. Major works of architecture and sculpture in Renaissance Italy, including the historical and theoretical bases for these arts.

ARTH 340 - Northern Baroque Art (3)
Prerequisites: ARTH 114, 115. 17th century art in Belgium, Holland and France with emphasis on Rubens, Rembrandt and Poussin.

ARTH 341 - Italian and Spanish Baroque Art (3)
Prerequisites: ARTH 114, 115. Painting, architecture and sculpture of the 17th century in Italy and Spain.

ARTH 342 - Eighteenth Century Art (3)
Prerequisites: ARTH 114, 115. Concentration on the French Rococo and its evolution into Neoclassicism; decorative arts; English and Italian painting.

ARTH 350 - Nineteenth Century Art (3)
Prerequisites: ARTH 114, 115. Painting and sculpture in Europe with emphasis on French Art; Neoclassicism, Romanticism, Realism and Impressionism.

ARTH 351 - Twentieth Century Art (3)
Prerequisites: ARTH 114, 115. From Post-Impressionism to Contemporary art in painting and sculpture.

ARTH 352 - American Art (3)
Prerequisites: ARTH 114, 115. A survey of American painting and sculpture with emphasis on the 19th and 20th centuries.

ARTH 360 - Architecture of Colonial America (3)
Prerequisites: ARTH 114, 115. Emergence of an indigenous American architecture with emphasis on regional and cultural influences to 1800. (Does not fulfill any Art History major area requirements).

ARTH 361 - Nineteenth Century Architecture (3)
Prerequisites: ARTH 114, 115. Development of nineteenth century architecture from its roots in Neoclassicism. Form, style, technology, as related to historical sources with emphasis on revival architecture.

ARTH 362 - Twentieth Century Architecture (3)
Prerequisites: ARTH 114, 115. Twentieth Century architecture in America and Europe, with emphasis on important monuments, styles and individual architects.

ARTH 370 - Art in the Market Place (3)
Prerequisites: ARTH 114, ARTH 115. This course explores the history of the art market from 1760 to the present. It examines collecting trends with attention given to the history of auction houses. Regular lectures and class discussions also cover museum case studies, recent auction sales, art scandals and other timely topics.

ARTH 470 - Special Studies in Art History (3)
Prerequisites: ARTH 114, 115. Concentration in seminar format on an individual artist, specific problem, limited time period, or theme; for Art History majors and other qualified students.

ARTH 471 - Landscape Architecture (3)
Prerequisites: ARTH 114, 115. The history of landscape design (in present-day terms landscape architecture) from its beginning in antiquity to the present day.

ARTH 472 - Contemporary Art and Art Criticism (3)
Prerequisites: ARTH 114, 115. This course explores the history of art since 1945 and the critical response to that art. Students are required to view and review at least four contemporary art exhibitions in the Washington, D.C. and Richmond areas on field trips taken throughout the semester.

ARTH 491, 492 - Individual Study in Art History (3, 3)
Prerequisites: ARTH 114, 115, and at least three Art History courses in three different chronological periods; for Art History majors only. Faculty–approved research project, oral presentation and major paper. Vehicle for those seeking honors in Art History.

ARTH 499 - Internship (credits variable)
Supervised off-campus experience developed in consultation with the Art History faculty. May not be used to satisfy the Art History 400-level research course requirement. A maximum of 3 credits may count toward the major requirements.

Studio Art Course Offerings

ARTS 101 - Two Dimensional Design (3)
Basic study of design elements (line, shape, texture, value, color) used in visual communication, both figural and non-figural.

ARTS 102 - Three Dimensional Design (3)
Foundation course dealing with experiments in 3-D design and architectonic constructions in a variety of media.

ARTS 111, 112 - Beginning Ceramics (3, 3)
Basic techniques of handbuilding and wheel throwing; introduction to studio procedures including making clay, preparing and applying glaze and kiln firing.

ARTS 170 - Beginning Painting and Drawing (3)
Basic methods of techniques of realistic and abstract art; investigation of light and dark, color, line, composition, and design. (Does not satisfy Studio Art major requirement on painting).

ARTS 221 - Drawing I (3)
Prerequisite: ARTS 101 or consent of the instructor. Introduction to the basic principles of structural drawing and composition in various media.

ARTS 222 - Drawing II (3)
Prerequisite: ARTS 221 or consent of the instructor. Further study of drawing principles; compositional problems and technique in various media.

ARTS 231, 232 - Beginning Sculpture (3, 3)
Prerequisites: ARTS 101 and 102. Study and construction of volume and mass using figurative and non-figurative subject matter in a variety of plastic and carving media.

ARTS 241 - Photography (3)
Prerequisites: ARTS 101 or ARTS 102 and permission of the Instructor. A practical introduction to cameras and lenses along with basic darkroom techniques for printing black and white photographs. A brief study of the history of photography and basic photographic chemistry is included.

ARTS 301 - Color Theory (3)
Prerequisite ARTS 221. This course explores the study of color as it is related to visual perception, artistic expression and structure; the theories of Munsell, Itten, Goethe and others will be used as tools.

ARTS 311, 312 - Ceramics I and II (3, 3)
Prerequisites: ARTS 111 or 112 or consent of the instructor. Further exploration of wheel-thrown forms, handbuilding processes and sculpture; experiments with glazing and firing.

ARTS 313, 314 - Life Drawing (3, 3)
Prerequisite: ARTS 221 or consent of the instructor. Comprehensive linear and painterly drawing techniques using the human figure. Emphasis will range from traditional proportion and composition to experimental and personal interpretations of the figure.

ARTS 321 - Printmaking I (3)
Prerequisite: one year of drawing or consent of the instructor. Intaglio and relief processes in the production of multiple originals.

ARTS 322 - Printmaking II (3)
Prerequisite: one year of drawing or consent of the instructor. Lithography and screen printing processes in the production of multiple originals.

ARTS 327 - Communications Design (3)
Prerequisites: ARTS 101, 102 and one year of drawing; or consent of the instructor. Conceptualization, design, and layout of work to be reproduced in print; introduction to graphic arts processes and techniques.

ARTS 331, 332 - Sculpture I and II (3, 3)
Prerequisite: Arts 231 or 232 or consent of the instructor. Figurative and nonfigurative conceptual approaches to form using a variety of media such as marble and hardwoods.

ARTS 343 - Painting I (3)
Prerequisite: one year of drawing or consent of the instructor. Fundamentals of problems, concepts and materials in the study of pictorial organization with emphasis on indirect and direct techniques in oils and acrylics.

ARTS 344 - Painting II (3)
Prerequisite: ARTS 343 or consent of the instructor. Advanced study of painting problems, concepts and materials in the study of pictorial organization and personal expression including water media and experimental techniques.

ARTS 361, 362 - Experimental Watercolor I and II (3, 3)
Prerequisites: ARTS 101, 221, 222, (or 313 or 314). The problems and techniques in traditional and non-traditional approaches to the medium of watercolor and related water media will be explored.

ARTS 363 - Textile Design (3)
Prerequisite: ARTS 101 or consent of the instructor. Introduction to fabric construction and surface design; projects in frame and four harness loom weaving and indirect dye techniques.

ARTS 460 - Special Studies in Studio Art (3)
Special courses in an area of Studio Art selected by the faculty after consultation with the students; advanced students only.

ARTS 495, 496 - Individual Study in Studio Art (3, 3)
Independent work under the supervision of a member of the Studio Art faculty. By permission of instructor.

ARTS 499 - Internship (Credits variable)
Supervised off-campus experience developed in consultation with the Studio Art faculty. A maximum of 3 credits may count toward the major requirements.

Department of Biological Sciences

Michael L. Bass, *Chair, Career Adviser - Environmental Science*
Stephen W. Fuller, *Career Adviser - Biology*
Werner Wieland, *Career Adviser - Allied Health*

Professors
Michael L. Bass (A.A., Clinch Valley College; B.S., Virginia Polytechnic Institute; M.S., Medical College of Virginia; Ph.D., Virginia Polytechnic Institute and State University)
Stephen W. Fuller (B.S., Cornell University; Ph.D., University of New Hampshire)
Thomas L. Johnson (B.A., Lynchburg College; M.A., Ph.D., University of Virginia)

Associate Professors
Rosemary Barra (B.S., Duquesne University; Ph.D., Rutgers University)
Werner Wieland (B.S., M.S., Virginia Commonwealth University; Ph.D., Auburn University)

Assistant Professors
Daniel C. Abel (B.S., M.S., College of Charleston; Ph.D. University of California, San Diego)
Stephen G. Gallik (B.S., M.S., Ph.D., The Pennsylvania State University)
Joella C. Killian (B.A., M.A., University of North Carolina; Ph.D., North Carolina State University)
Lynn O. Lewis (B.S., Ph.D., Virginia Polytechnic Institute and State University)

Faculty areas of interest for individual study courses are as follows:

Dr. Abel: marine biomedicine; ecological physiology, marine biology.

Dr. Barra: biochemistry; immunology; tissue culture; cellular growth regulation; cancer and carcinogenesis.

Dr. Bass: environmental physiology; effects of toxic materials on vertebrates and invertebrates; aquatic ecology.

Dr. Fuller: phycology; horticulture; plant anatomy, physiology, ecology, taxonomy, geography; tropical ecology.

Dr. Gallik: cell biology; tissue culture; regulation of cell movement.

Dr. Johnson: history of biology; vertebrate anatomy and behavior; human embryology.

Dr. Killian: insect behavior, evolution and ecology; integrated pest management.

Dr. Lewis: microbial physiology; veterinary microbiology.

Dr. Wieland: ichthyology; aquatic biology; vertebrate biology.

The Department strives to create an atmosphere in which students can develop a strong background in the sciences, and the intellectual independence to build on that foundation. Two major programs, Biology and Environmental Earth Science, are offered.

Laboratory work enables students to learn techniques and gather data which support theories explored in lecture. Equipment and facilities available for student use include a scanning, recording spectrophotometer, an ultracentrifuge, respirometers, research-grade bright field microscopes, phase contrast microscopes, fluorescence microscopes, video-microscopy systems, a tissue culture laboratory, a radioisotope laboratory, recording oscillographs, computerized data collection and analysis systems, a phytotron, and an aquatic studies laboratory. Equipment for ecological studies in terrestrial, fresh water and marine environments includes live animal traps, plankton and insect nets, seines, dissolved oxygen, conductivity and pH meters for field work, a small fleet of boats including one equipped for trawling and dredging, and fresh and salt water aquaria. Collections of microscope slides, skeletons, vertebrates and invertebrates, and an herbarium of over 5,000 pressed plants are also on hand.

The Biology major program explores all basic areas, including cellular/molecular, organismic, and population biology. Students must also take both zoological and botanical courses. Although an outline of required course work is prescribed, the program allows enough flexibility for students to delve into areas of particular interest. While recognizing and addressing early-career needs for basic information, concepts, and field and laboratory experience, the Department also encourages students to develop their liberal arts education in ways which will enhance their ability to maximize opportunities later in their careers. Each year the Department brings in eight to ten speakers who present their research and provide biology-related job information, creating opportunities for students to broaden their educational as well as develop career perspectives. The lecture series is augmented by a career night in which alumni share their experiences in the job market. A number of our students have received jobs because of their involvement in one of the many internship opportunities which are available for academic credit outside of the major program.

Students who are interested in pursuing studies beyond the scope of listed courses may take Biology 481, Readings in the Biological Sciences. This course may help the student define a problem for field or laboratory investigation, in which case Biology 491, Special Problems in Biology, would be taken. Students who have the proper academic record may use these courses to pursue Honors in Biology. Financial support for student research is available for majors.

Requirements for the Biology Major

In the Major Subject: 40 credits including BIOL 121, 122, 211, 341, and BIOL 450 or EESC 460. At least one course in Cellular/Molecular (C/M), Organismal (OB), and Population Biology (PB) must be taken. One course dealing specifically with plants must be taken.

Additional Major Requirements: CHEM 111, 112 are prerequisite to BIOL 211 and certain other courses (8 credit hours of other Chemistry may be substituted with prior permission of the Chair); therefore, both BIOL 121, 122, and CHEM 111, 112 should be taken in the student's first year. All students must take a major field achievement test in their senior year, preferably second semester.

Recommended: organic chemistry, other chemistry; a year of physics and of mathematics, statistics, computer science, geology, History of Scientific Thought (PHIL 244), and Bioethics (BIOL 250).

Biology Course Offerings

BIOL 121, 122 - Biological Concepts I, II (4, 4)
An introduction to biological principles and a survey of organisms. Laboratory.

BIOL 202 - Heredity and Evolution (3)
Prerequisite: BIOL 121. Principles of heredity, their applications to evolutionary theory, and their social implications. For non-majors only.

BIOL 204 - Nutrition (3)
A survey of current information related to human nutritional needs in health and disease, demographic factors, food additives and special diets. Does not count towards the required 40 credits in Biology.

BIOL 211 - Cellular Biology (4) (C/M)
Prerequisites: BIOL 121, 122 and 8 credit hours of Chemistry. Study of cell structure and function. Laboratory.

BIOL 231 - Botany (4) (OB)
Prerequisite: BIOL 121. Survey of the plant kingdom emphasizing morphogenetic descriptions, life histories, and evolutionary relationships. Laboratory.

BIOL 250 - Bioethics (3)
Prerequisites: BIOL 121, 122. Selected topics considered from the standpoint of their biological consequences and ethical implications for man. Does not count toward required 40 credits in Biology.

BIOL 251 - History of Biology (3)
Prerequisites: BIOL 121, 122. Chronological development of selected biological theories and their impact on contemporary biology.

BIOL 252 - General Ecology (3) (PB)
Prerequisite: BIOL 121 or 122. A study of the relationships of plants and animals to their environment, and the maintenance of balance in nature. For nonmajors except by permission of department chair.

BIOL 301 - Anatomy of the Chordates (4) (OB)
Prerequisites: BIOL 121, 122. A comparative study of the major systems of representative chordates. Laboratory. Students may not count both 301 and 384 towards the required 40 credits in Biology.

BIOL 302 - Embryology of the Chordates (4) (OB)
Prerequisites: BIOL 121, 122. Development of typical chordates. Laboratory.

BIOL 311 - Plant Ecology (4) (PB)
Prerequisites: BIOL 121, 122. Ecological principles as applied to plants including major biomes, plant succession, competition, environmental parameters, and methods of data collection and evaluation. Laboratory.

BIOL 312 - Plant Physiology (4) (OB)
Prerequisite: BIOL 211. Experimental and theoretical treatment of the functional mechanisms in plants. Laboratory.

BIOL 321 - Invertebrate Zoology (4) (OB)
Prerequisites: BIOL 121, 122. Survey of invertebrate phyla emphasizing structural characteristics, life histories and evolutionary relationships. Laboratory.

BIOL 322 - Animal Ecology (4) (PB)
Prerequisites: BIOL 121, 122, and Chemistry, 8 credit hours. The relationship between animals and their environment. Field and laboratory studies include observations of marine, fresh water, and terrestrial animals. Laboratory.

BIOL 323 - Entomology (4) (OB)
Prerequisites: BIOL 121, 122. Introduction to structure, function and ecology of insects. Students prepare insect collections. Laboratory.

BIOL 331 - Histology (4)
Prerequisite: BIOL 211. The preparation and microscopic examination of animal tissues. Study of the relationship between function and structure of tissues and their cells. Laboratory.

BIOL 341 - General Genetics (4) (C/M)
Prerequisite: BIOL 211. Structure, function, and transmission of genetic material using examples from viruses, bacteria and eukaryotic organisms. Application of these principles to human inheritance. Laboratory.

BIOL 351 - Laboratory Techniques (4)
Prerequisites: BIOL 121, 122, and Chemistry, 8 credit hours. Introduction to instrumentation used in physiological experiments. The scientific method and experimental design are discussed and used.

BIOL 363 - Environmental Physiology (4) (OB)
Prerequisites: BIOL 121, 122, and Chemistry, 8 credit hours. Experimental and theoretical treatment of environmental factors in the physiology of organisms.

BIOL 364 - Animal Physiology (4) (OB)
Prerequisite: BIOL 211. A comparative study of physiological systems in animals. Laboratory.

BIOL 371 - Microbiology (4) (OB)
Prerequisites: BIOL 121, Chemistry, 8 credit hours. Emphasis is placed on bacteria, their morphology, physiology, nutrition, and ecology. Laboratory.

BIOL 372 - Parasitology (4) (OB)
Prerequisites: BIOL 121, 122. The structure, life histories, and host relationships of invertebrate parasitic forms. Laboratory.

BIOL 384 - Human Anatomy (4) (OB)
Prerequisites: BIOL 121, 122. The structure of the human body at the cell, tissue, organ and system levels of organization. Laboratory. Students may not count both BIOL 301 and BIOL 384 toward the required 40 credits in Biology.

BIOL 385 - Human Physiology (4) (OB)
Prerequisites: BIOL 384 or BIOL 301, Chemistry, 8 credit hours. (4 credit hours may be corequisite). A systematic study of the physiology of the nervous system, circulation, respiration, digestion, kidney function, hormonal control, and reproduction in the human body. Laboratory.

BIOL 391 - Immunology (4) (C/M)
Prerequisite: BIOL 341. Introduction to the principles and theories of host defense with emphasis on antibody production, characterization and identification. Laboratory.

BIOL 422S - Marine Ecology (4) (PB)
Prerequisites: BIOL 121, 122, and Chemistry, 8 credit hours. A general introduction to the marine environment with emphasis on the biological, chemical and physical aspects of various marine communities.

BIOL 423S - Research in Marine Ecology (1-2)
Prerequisite or corequisite: BIOL 422S.

BIOL 442 - Evolution (3) (PB)
Prerequisite: BIOL 341. The history and development of modern evolutionary thought.

BIOL 450 - Seminar (1)
Prerequisites: BIOL 121, 122. Readings, reports and group discussion on topics of historic and current biological interest. Open only to majors.

BIOL 471 - Topics in Biology (2-4)
Prerequisites: BIOL 121, additional prerequisites as appropriate to specific topic. Specialized topics not offered on a regular basis, e.g. biology of fishes, vertebrate natural history, animal behavior. Laboratory included with certain topics.

BIOL 481 - Readings in the Biological Sciences (1-2)
Readings in biological literature selected by the student, who is guided by a staff member. Open to junior and senior majors by permission of Department.

BIOL 491 - Special Problems in Biology (1-3)
Prerequisite: BIOL 481. Individual laboratory or field investigation supervised by a staff member. Open to junior and senior majors by permission of Department.

BIOL 499 - Internship
Prerequisite: Junior or senior major in good academic standing. Supervised off-campus experience, developed in consultation with the Department. Credits variable. Does not count towards the required 40 credits in Biology.

Department of Business Administration

Gano S. Evans, *Chair*
Steven L. Czarsty, *Career Adviser - General Business*
Fredrick Davidson, *Career Adviser - Management*
Patricia L. Metzger, *Career Adviser - Accounting*
Fred T. Whitman, *Career Adviser - Marketing*

Professors
Steven L. Czarsty (B.S.B.A., University of Hartford; M.B.A., University of Connecticut; D.B.A., George Washington University)
Gano S. Evans (A.B., Colorado State College, M.B.A., University of Denver; Ph.D., University of Washington)

Associate Professors
Fredrick Davidson (B.S., Texas A & M; M.B.A., Ph.D., University of Pittsburg)
Patricia L. Metzger (B.S., University of Maryland; M.B.P.A., M.S.T., Southeastern University; C. P. A., C. M. A.)
Robert W. Scull (A.B., Bowdoin College; M.B.A., University of Pennsylvania; Ph.D., University of Massachusetts)

Assistant Professors
R. Leigh Frackelton (B.A., Washington and Lee University; J.D., University of Richmond; M.L.T., College of William and Mary; C. P. A.)
James B. Shelton (B.S., University of Maryland; M.S.A., Virginia Polytechnic Institute and State University; C. P. A.)
Karen L. Williams (B.A., J.D., University of Virginia)

Senior Lecturers
Harry J. Skinker (B.S., Virginia Polytechnic Institute and State University; M.B.A., University of Alabama)
Fred T. Whitman (B.A., Catawba College; M.B.A., University of Alabama)

Steve Czarsty teaches Accounting and Management, and his current research interests are in alternate life styles of mature adults. Fred Davidson's special teaching and research interests are managerial intuition, creative problem solving, and entrepreneurship. Gano Evans teaches and does research in management of professionals, management of the arts, and economic diversification. Leigh Frackelton has teaching and research interests in federal income taxes, accounting, and business law. In addition to consulting and adult continuing education, Patricia Metzger is interested in the women's movement, environmental issues, and animal rights. Robert Scull's teaching interests are in financial analysis and international business; his research interests are in business ethics and in overseas investment under conditions of political risk. James Shelton is actively pursuing a Ph.D. in Business while teaching at Mary Washington. In addition to teaching, Harry Skinker has local business and real estate interests, and is an avid sports enthusiast. Tom Whitman has focused his teaching and research on class projects doing comparative analysis of competing local retail firms and conducting marketing research studies for local firms and government agencies.

The major in Business Administration is designed to provide an understanding of the variety of approaches to and the complexities of the managerial process in an ever-changing society, both within and outside the business firm. The program aims to develop both specific analytical skills and a broad intellectual outlook in students who wish to combine their liberal arts education with course work of intellectual substance which will provide a background for an immediate career in business or for graduate study. An "Executive-in-Residence" program funded by the Dominion Bank and Southland Corporation offers students wide-ranging discussions with business leaders. Scholarships specifically designated for students majoring in Business Administration are funded by Signet Bank and the Spotsylvania Mall Association. Many students belong to the campus chapter of the Society for the Advancement of Management.

Requirements for the Major

Thirty-six credits in Business Administration courses 231, 232, 300, 302, 310, 352, 381, 383, 490, plus nine credits in upper level Business courses (not to include BUAD 499 Internship).

Course Offerings

Students considering majoring in business Administration should note that ECON 201, 202 and BUAD 231 and 232 are prerequisites for all other Business courses; and that MATH 200 is a prerequisite to BUAD 302, 352, and 381.

BUAD 231, 232 - Principles of Accounting (3, 3)
Fundamental accounting principles and practices involved in the recording and interpretation of accounting data. Only in sequence. (Fall and Spring)

BUAD 300 - Principles of Management (3)
Prerequisites: ECON 201, 202, BUAD 231, 232. Integrative approach to organizational concepts, management principles, philosophy and theory in public and private organizations. Evolution of management thought; functions and practices stressing present management approaches; general systems theory; and contingency management.

BUAD 302 - Production Systems (3)
Prerequisites: ECON 201, 202, BUAD 231, 232, 300, MATH 200. Managerial procedures in the production process; planning, control, standards, and reports.

BUAD 310 - Principles of Marketing (3)
Prerequisites: ECON 201, 202, BUAD 231, 232. The place of marketing in the economic system together with the policies and practices of marketing institutions. Subjects considered include: marketing functions, marketing organization, marketing research, merchandising, channels of distribution, transportation and social regulation of marketing.

BUAD 312 - Retail Management (3)
Prerequisites: ECON 201, 202, BUAD 231, 232, 310. Strategic planning for the organization, operation, and management of retail establishments, inventory methods, retail buying and selling.

BUAD 331, 332 - Intermediate Accounting (3, 3)
Prerequisites: ECON 201, 202, BUAD 231, 232. The study of the theory and the history of accounting principles and their application to the acquisition of assets, determination of income, and the preparation of analysis of financial statements. Only in sequence.

BUAD 333 - Cost/Managerial Accounting (3)
Prerequisites: ECON 201, 202, BUAD 231, 232, or permission of instructor. Principles and procedures for planning and controlling routine and non-routine decisions, setting policy and performing long-range planning. Cost behavior, standard cost, flexible budgeting, cost allocation, performance measurement and analysis for decision making are emphasized.

BUAD 334 - Federal Taxation of Individuals (3)
Prerequisites: ECON 201, 202, BUAD 231, 232. The study of federal income taxation of individuals covering gross income, deductions and credits, sales, other disposition of property, changes in the law and economic impact of the law.

BUAD 335 - Federal Taxation of Business (3)
Prerequisites: ECON 201, 202, BUAD 231, 232, 334. Federal income tax of partnership, corporations and owners; fiduciary responsibilities in reporting income

BUAD 352 - Quantitative Methods for Decision-Makers (3)
Prerequisites: ECON 201, 202, BUAD 231, 232, MATH 200. Development of various algorithms and models for managerial decisions including: decision theory, inventory models, linear programming, transportation and assignment problems, and waiting lines.

BUAD 381 - Corporate Finance (3)
Prerequisites: ECON 201, 202, BUAD 231, 232, MATH 200. Overview of financial management emphasizing identification and solution of financial problems. Coverage includes the role of financial management, tools of financial analysis, cost of capital, financial structure and long-term assets.

BUAD 383, 384 - Business Law I, II (3, 3)
Prerequisites: ECON 201, 202, BUAD 231, 232. A study of the legal and ethical principles and rationale underlying the rights and obligations of business relationships. Common law torts and contracts. Uniform Commercial Code and regulatory areas such as antitrust securities, debtor-creditor rights and labor law are emphasized. Only in sequence.

BUAD 405 - Organizations (3)
Prerequisites: ECON 201, 202, BUAD 231, 232, 300 and senior standing. Theory of organizations from both the behavioral and structural/design views. The behavioral view focuses on individual and interpersonal behavior, and the latter view focuses on variables affecting the administration of complex organizations.

BUAD 413 - Marketing Research (3)
Prerequisites: ECON 201, 202, BUAD 231, 232, 310. Research in marketing as a tool for the identification, collection, and analysis of information relevant to decision-making by the marketing executive.

BUAD 414 - Marketing Strategy (3)
Prerequisites: ECON 201, 202, BUAD 231, 232, 310. Capstone survey of the major topics in contemporary marketing; detailed study of concepts and procedural alternatives in the delineation of market targets, the development and implementation of the marketing mix, the control and analysis of the total marketing effort, marketing strategy literature, and comprehensive cases.

BUAD 431 - Governmental Accounting (3)
Prerequisites: ECON 201, 202, BUAD 231, 232. Accounting for governmental organizations (municipalities, state and federal governments, school districts, hospitals and universities). Nature of fund accounting, allocation of funds, disbursements, operational auditing, administrative and legal control.

BUAD 432 - Advanced Accounting Problems (3)
Prerequisites: ECON 201, 202, BUAD 231, 232, 331, 332. Advanced problems in financial accounting theory dealing with partnerships, corporations, consolidated statements and fiduciary accounting.

BUAD 435 - Auditing (3)
Prerequisites: ECON 201, 202, BUAD 231, 232, 331, 332. Audit concepts, theory, standards, procedures, ethical and legal requirements, with emphasis on audit evidence, documentation and testing required before issuing various reports by both internal and external auditors.

BUAD 440 - Human Resource Management (3)
Prerequisites: ECON 201, 202, BUAD 231, 232. A study of the philosophy, principles, policies, and programs for effective personnel management and industrial relations as portrayed by case studies drawn from business and government.

BUAD 442 - Labor-Management Relations
Prerequisites: ECON 201, 202, BUAD 231, 232. A survey of the collective bargaining process, the labor contract, unionism, impact of labor-management relations on wages, the legal context of labor-management relations and the responsibilities of unions and management.

BUAD 471 - Business Administration Seminars (3)
Prerequisites: ECON 201, 202, BUAD 231, 232. Special topics of interest to staff and students are discussed in individual seminars which focus on specific areas within the various disciplines of Business Administration. e.g., Accounting Theory, Management, Legal, Social and Ethical Issues, Marketing, Finance.

BUAD 473 - (3) International Business Seminar (3)
Prerequisites: ECON 201, 202, BUAD 231, 232. Social, cultural, political, legal, and technological environment of multinational business, emphasizing host-government/multinational corporation interface. Terminology, trade uses and practices, conditions essential for successful business operations, including export and import procedures, documentation, and legal requirements; and physical movement of goods in international business.

BUAD 490 - Business Policy (3)
Prerequisites: ECON 201, 202, BUAD 231, 232, and 24 credit business core. A senior-level course which is the capstone of the student's study of business administration. Cases concerning administrative management present problems involving the integration of departmental policies into administrative decisions.

BUAD 491 - Individual Study in Business Administration
Prerequisites: ECON 201, 202, BUAD 231, 232. Directed individual research on an approved problem in business administration. Credits variable.

BUAD 499 - Internship
Prerequisites: ECON 201, 202, BUAD 231, 232. Supervised off-campus experience, developed in consultation with the department. Credits variable, 0-3. Declared majors only. Cannot be counted in the major.

Department of Chemistry and Geology

Roy F. Gratz, *Chair*
Bernard L. Mahoney, *Career Adviser - Chemistry*
Grant R. Woodwell, *Career Adviser - Geology*

Distinguished Professor
Bernard L. Mahoney, Jr. (B.S., M.S., Boston College; Ph.D., University of New Hampshire; 1984 Simpson Award for Excellence in Teaching)

Professors
Judith A. Crissman (B.A., Thiel College; Ph.D., University of North Carolina)
John K. George (A.B., Columbia College; M.S., University of Connecticut; M.S., Clarkson University; Ph.D., University of Virginia)
Roy F. Gratz (B.S., University of Pittsburgh; A.M., Ph.D., Duke University)
Lawrence A. Wishner (B.S., M.S., Ph.D., University of Maryland)

Associate Professor
Robert L. McConnell (B.S., M.S., University of Tennessee; Ph.D., University of California, Santa Barbara)

Assistant Professors
Raymond B. Scott, (B. A., Hartwick College; M. S., Ph.D., University of Cincinnati)
Grant R. Woodwell (B.A., Columbia University; M. Phil., Ph.D., Yale University)

The departmental faculty have a wide variety of professional interests. Dr. Crissman's expertise is in inorganic chemistry with emphasis on complex ions of transition metals, metal complexes in biochemistry, and geochemistry. Dr. George's background is in computational chemistry, and he is interested in the potential of microcomputers for providing greater understanding of chemical reactivity. Dr. Gratz is an organic chemist whose graduate work dealt with reaction mechanisms and whose current research is on thermo-oxidatively stable polymers. Dr. Mahoney's concerns are physical and environmental chemistry with secondary interest in photochemistry and computers in chemical education. Dr. McConnell is a geologist whose interests include the origin of marine sediment and the effects of fossil fuel use on the environment. Dr. Scott has his training in analytical electrochemistry, and is also concerned with environmental issues. Dr. Woodwell is a geologist who is working on rock deformation and stable isotope exchange during fluid-rock interaction. Dr. Wishner's background is biochemistry, especially the autoxidation of lipids, and he has interests in vitamin E metabolism, hibernation metabolism in small mammals, and natural textile dyes.

The Department of Chemistry and Geology supports major programs in two fundamental scientific disciplines. Chemistry, the study of the

structure, properties, and reactivity of matter, has been called the "central science" because it forms a bridge between biology and physics. Geology, the study of the structure and processes of the Earth, provides a foundation for understanding the evolution, environment, and resources of our planet. These two disciplines afford insight into natural phenomena at both the microscopic and macroscopic levels, and they provide problem-solving skills for functioning in the modern world.

The department has well-equipped laboratories to support and reinforce classroom instruction and to provide opportunities for research. Instrumentation is available for most types of spectroscopy including ultraviolet, visible, infrared, nuclear magnetic resonance, atomic absorption and emission, x-ray fluorescence, and mass spectroscopy. Other major equipment items include several gas and liquid chromatographs, two electrochemical analyzers, and an x-ray diffractometer. The department also has a number of microcomputers and has access to the College's minicomputer. For geological field work, there are a proton magnetometer, a seismometer, surveying equipment, altimeters, and, for classroom study, there is an extensive collection of rocks, minerals, and fossils.

The Chemistry program offers a modern curriculum for the study of chemistry within the general framework of a liberal arts and sciences education. It prepares a student for graduate, medical, or dental school; for employment in the chemical industry; or for secondary school teaching. In addition, a number of courses provide an important foundation in chemical theory and practice for the study of biology, geology, environmental earth science, and the health sciences. In general, chemistry is a good major program around which one can build a career-focused set of courses from other disciplines, e.g., with mathematics and computer science for chemical engineering or industrial chemistry; with economics and business administration for industrial chemistry; with biology for the health sciences; and with geology for energy or environmental research. Majors are encouraged to do independent study and research during the senior year. If they have a 3.00 overall grade point average with a 3.25 average in chemistry courses, they may pursue Honors in chemistry by completing an independent research project and writing and defending a thesis.

The **Geology** concentration within the Earth Science and Geology program offers introductory courses designed to present the basic principles and applications of the science, and upper-level courses that provide more thorough analysis of geological processes for students planning professional employment or graduate study in the field. The program also provides background for teaching the earth sciences. Geology is a major program around which one can build a career-focused set of courses from other disciplines, e.g., with geography for urban and land-use planning or cartography; with biology for environmental studies; and with chemistry and physics for geochemical or geophysical research on energy and mineral resources. Majors are encouraged to do independent study and research during their senior year. If they have a 3.00 overall grade point average with a 3.25 average in geology courses,

they may pursue Honors in geology by completing an independent research project and writing and defending a thesis.

Requirements for the Chemistry Major

In Major Subject: Thirty-five (35) credits in the following chemistry courses: CHEM 111, 112, 211, 212, 252, 383, 384, 387, 388, 423, 451, and 452.

Additional major requirements: One upper-level chemistry course of three (3) or four (4) credits.

Note: MATH 122 and PHYS 105 and 106 are prerequisites to CHEM 383 and should be completed before the junior year.

Requirements for the Geology Major

See the entry under "Program in Environmental Science and Geology."

Chemistry Course Offerings

CHEM 105, 106 - Introductory Chemistry I, II (4, 4)
An overview of the principles of chemistry with emphasis on practical applications. Laboratory. Only in sequence. Does not satisfy any major program requirements or serve as prerequisite to any other chemistry courses. Credit for only one sequence (CHEM 105,106, or CHEM 111, 112) will count toward degree requirements.

CHEM 111, 112 - General Chemistry I, II (4, 4)
Introduction to the fundamental principles of chemistry and the more important elements and their compounds. Laboratory. Only in sequence. The entry level course for additional work in chemistry. Credit for only one sequence (CHEM 105,106, or CHEM 111, 112) will count toward degree requirements.

CHEM 211, 212 - Organic Chemistry I, II (4, 4)
Prerequisite: CHEM 112. The comprehensive study of the structure and reactivity of carbon compounds. Laboratory. Only in sequence.

CHEM 252 - Analytical Chemistry (4)
Prerequisites: CHEM 112 and MATH 111 or equivalent. Theory and techniques of analytical chemistry including introductory instrumental methods of analysis. Laboratory.

CHEM 317, 318 - Biochemistry I, II (3, 3)
Prerequisites: CHEM 212. The application of chemical principles to the study and understanding of the living state. Only in sequence.

CHEM 319, 320 - Biochemistry Laboratory I, II (1, 1)
Prerequisites: CHEM 212 and 252; corequisites: CHEM 317 and 318. Selected research techniques involving the chemical composition and properties of cells, tissues, and organisms.

CHEM 330 - Environmental Chemistry (4)
Prerequisites: CHEM 112 and permission of the instructor. A study of the basic principles of environmental chemistry complemented with laboratory and field experiments that determine the chemical composition of environmental samples. Laboratory. May not satisfy any major program requirements or serve as prerequisite to any other chemistry courses.

CHEM 343 - Inorganic Chemistry (3)
Prerequisite: CHEM 112. Modern theories of atomic structure and chemical bonding and their applications to molecular and metallic structures and coordination chemistry.

CHEM 345 - Inorganic Chemistry Laboratory (1)
Corequisite: CHEM 343. Selected experiments in the principles of inorganic chemistry, including preparation and characterization of selected inorganic compounds.

CHEM 383, 384 - Physical Chemistry I, II (3, 3)
Prerequisites: CHEM 112, PHYS 105 and 106, and MATH 122. Thermodynamic, kinetic, quantum mechanical, and spectroscopic properties of chemical systems. Only in sequence.

CHEM 387 - Physical Chemistry Laboratory I (2)
Prerequisite: CHEM 252; corequisite: CHEM 383. Selected experiments involving the investigation of thermodynamic, electrochemical, and kinetic properties of chemical systems.

CHEM 388 - Physical Chemistry Laboratory II (1)
Prerequisite: CHEM 252; corequisite: CHEM 384. Selected experiments involving the investigation of spectroscopic and quantum mechanical properties of chemical systems.

CHEM 392 - Instrumental Methods of Analysis (4)
Prerequisite: CHEM 252; corequisite: CHEM 384. Principles and methods of optimization of instrumental methods used in characterizing chemical systems. Laboratory.

CHEM 411 - Advanced Organic Chemistry (3)
Prerequisite: CHEM 212. Organic reaction mechanisms and the relation of molecular structure to physical and chemical properties.

CHEM 423 - Experimental Methods in Chemistry (4)
Prerequisites: CHEM 212 and 252. Spectroscopic, chromatographic, and chemical functional group techniques used in characterizing chemical systems. Laboratory.

CHEM 451-452 - Seminar I, II (1, 1)
Open to senior majors only, except by permission of the Department. Introduction to the chemical literature and information retrieval; oral reports and discussion of selected topics in chemistry.

CHEM 471 - Advanced Topics in Chemistry (2-3)
Prerequisite: permission of the instructor. Advanced treatment of selected topics in chemistry.

CHEM 491 - Individual Study (1-4)
Open to qualified students by permission of the Department. Individual investigation of a chemical topic or system under the direction of a member of the Department. Students pursuing Honors in Chemistry register for 4 credits of CHEM 491H each semester of the senior year.

CHEM 499 - Internship (Credits variable)
Prerequisites: CHEM 388 and 392 or 423. Supervised off-campus experience developed in consultation with the Department. The first six (6) credits of internship may not count toward the major program requirements. Subject to Departmental approval, credits beyond six may be substituted for some major requirement.

Department of Classics, Philosophy and Religion

Robert F. Boughner, *Chair*
George M. Van Sant, *Career Adviser - Philosophy*
Diane F. Hatch, *Career Adviser - Classics*
David W. Cain, *Career Adviser - Religion*

Distinguished Professor
George M. Van Sant (A.B. St. John's College; M.A., Ph.D., University of Virginia; 1986 Simpson Award for Excellence in Teaching)

Professors
David W. Cain (A.B., Princeton University; B.D., Yale University; M.A., Ph.D., Princeton University)
Diane F. Hatch (A.B., Sweet Briar College; M.A., Ph.D., University of North Carolina)
Janet F. Wishner (B.A., Leeds University; M.A., Bedford College, University of London; Ph.D., University of Georgia)

Associate Professor
Robert F. Boughner (B.A., Duke University; M.A., Ph.D., The Johns Hopkins University)

Assistant Professors
James E. Goehring (B.A., University of California at Berkeley; M.A., University of California at Santa Barbara; Ph.D., Claremont Graduate School; 1989 Outstanding Young Faculty Member Award)
Craig R. Vasey (B.A., Towson State College; Doctorate, Université de Paris; Ph.D., Brown University)

George Van Sant's primary interests are logic, the history of science, the history of philosophy, and political philosophy. David Cain's special interests are contemporary theology, religion and literature, theodicy, and Kierkegaard studies. Diane Hatch has done special studies in Greek and Roman epic, and the role of women in antiquity. Bob Boughner is especially interested in Latin literature from the republican period and the impact of classical literature on succeeding epochs. Janet Wishner has a special interest in literature, philology, and the interpretation of Greek philosophical texts, as well as studies in ethics. Jim Goehring's special interests are Coptic studies, early church history and the New Testament. Craig Vasey has special interests in phenomenology, feminism, logic, and the history of philosophy.

The Department, combined in its present form since 1979, is comprised of three distinct disciplines. Four different major programs are offered: a major in Classics with a concentration in Classical Civilization; a major in Classics with a concentration in Latin; a major in Philosophy; and a major in Religion.

Some departmental activities are carried on with all three disciplines coming together; at the beginning of each session, for example, the department sponsors the Annual CPR Fall Picnic. In a more serious vein, the department sponsors an interdisciplinary lecture series and course, called *Mysterium Humanum* studies, in which each member of the department lectures on a general topic which provides a focus for a whole semester's study.

Other departmental activities are carried on by discipline. Classics sponsors a club called *Aere Perennis* ; Philosophy has a very active philosophy club; and the religion majors get together for field trips, films, dinners, and discussions in addition to meeting regularly to present senior theses. In recent years majors from all three disciplines have gone on to a variety of careers and professions. A high percentage undertake graduate work, law school or seminary. The Latin major produces a steady stream of Latin teachers. The skills cultivated by majoring in a humanities discipline readily carry over into the business world. In recent years a number of graduates from all three disciplines have gone into management positions.

Classics involves the study of the language and literature of Greece and Rome, as well as the civilization which evolved when Greece and Rome dominated the Mediterranean World. Since many of the ideas and principles which emerged at that time are basic to Western civilization, courses in classics apply to the study of almost all the liberal arts and sciences.

Students wishing to major in classics are offered the choice of a concentration in Latin or the interdisciplinary concentration in Classical Civilization. In either area, students develop the program, which may include individual study, in consultation with a faculty advisor.

While many classics majors include teacher certification in their schedule, others combine their concentrations in Latin or Classical Civilization with studies in related fields such as history, philosophy, religion, English, or modern foreign languages. With such a background, graduates have a wide range of opportunities after college, including museum work, archaeology, graduate study, teaching, and translating.

Latin majors may take advantage of several special opportunities. The College is a member of the Intercollegiate Center for Classical Studies in Rome, and students who major in Latin may study there; some financial aid is available. Latin majors may also work towards Honors with approval of the Department. In recent years, Latin majors have been unusually successful in obtaining high school teaching positions and in gaining admission to graduate and professional schools.

Philosophy is the critical examination of our basic beliefs. It requires the analysis of abstractions, and it develops the ability to do research, organize results, and present them in written or oral form. Because the discipline emphasizes creative research into philosophical problems as well as the competent expression of one's own views, philosophy can be studied profitably by a student majoring in any College program.

Philosophy serves the general academic program of the College by offering courses interesting to the scientist and mathematician, the social scientist, and the student of humanities and literature.

The major in philosophy is of special interest to students who wish a deeper understanding of the history of the discipline and the interrelations between philosophical problems. The major is especially beneficial to students planning to enter the traditional professions of law, theology, or medicine. Many students give depth to their academic preparation by combining philosophy and another subject in a double major.

The major program in **Religion** is a vital part of liberal arts studies at Mary Washington College. Students are introduced to diverse religious traditions and thinkers, to issues of pluralism and dialogue, to textual and historical scholarship, and to hermeneutics. Students receive personal attention, and the pursuit of individual interests is encouraged.

A religion major is a humanities student of broad cultural awareness trained to think, write, and express ideas cogently, and to enter into dialogue discerningly. Such abilities are valuable in any career and are especially well suited to careers involving human relations and communication. Religion majors find a wide variety of opportunities open to them and have gone on to pursue diverse careers in public relations, journalism, service organizations, teaching, and the arts. The B.A. degree in religion also equips students for graduate and seminary study in religion, as well as graduate study in other fields.

Honors are awarded in religion on the basis of excellence in major course work and in writing a senior thesis in RELG 401–Guided Research. Internships in religion are available to qualified students. Various religion offerings complement work in American Studies, anthropology, classics, drama, English, history, international affairs, philosophy, psychology and Russian studies, among other disciplines.

Major Requirements

Classical Civilization

Thirty-nine (39) credits in CLAS 201-491 and approved courses relating to classical civilization, including at least 12 credits in Latin or Greek, either of which may be used to establish competence in a foreign language.

Approved courses: Any course in Greek or Latin; ARTH 114, 310, 311; CPRD 299; ENGL 211, 212, 234, 242; HIST 331, 332; ITAL 395; LING 101; PHIL 111, 212, 321; RELG 205, 206, 220, 306, 341 (with approval).

Latin

Twenty-five (25) credits in Latin courses beyond the intermediate level including Latin 351; 12 credits from courses: ARTH 114, 310, 311; CLAS 201, 202, 203, 205, 206, 310, 331, 332, 380, 451, 452, 491; ENGL 211, 212, 234,242; GREK 131-132, 133, 134; ITAL 395; LING 101; PHIL 111, 212, 321; RELG 205, 206, 220, 306, 341 (with approval).

Philosophy

24 credits in Philosophy, 18 of which must be at the 300 or 400 level; 12 credits from PHIL 321, 322, 371, 372, 375, 376; 6 credits from the following: ANTH 322; CLAS 206; CPRD 200, 299, HIST 401, 402, 411, 412, 471Q; LATN 404; PHIL/BIOL 250; PSCI 422, 441; RELG 306, 314, 317, 331, 341 (by permission of the Department).

The Honors Option: Students with distinguished academic records are encouraged to pursue Honors by working on a project under the supervision of a member of the Department. Successful defense of a written thesis leads to the degree of Philosophy with Honors.

Religion

30 credits in religion courses, of which at least 12 must be at the 300 level or above. Six of the 30 credits may be drawn from the following courses: ANTH 472 (Special Topics in Anthropology: Primitive Religions), CLAS 206 (Greek and Roman Religion), PHIL 322 (Medieval Philosophy), and SOCG 422 (Sociology of Religion). CPRD 299 (*Mysterium Humanum*) counts towards the religion major in the same way as any other religion course. RELG 401 (Guided Research), required of all majors, may be taken during the fall or spring of the student's senior year and yields 3 of the needed 12 upperlevel credits.

Classics Course Offerings

CLAS 131 - Greek and Latin Roots of the English Language (3)
Introduction to the basic Latin and Greek components of English.

CLAS 201 - Classical Motifs in Literature (3)
A study of heroism, the heroic journey, and related themes in Homer, Virgil, and post-classical writers.

CLAS 202 - Ancient Tragedy (3)
A study of the tragic plays of Aeschylus, Sophocles, and Euripides.

CLAS 203 - Ancient Comedy (3)
Study of the selected works by Greek and Roman comedians and satirists.

CLAS 205 - Mythology (3)
The principle Greek and Roman myths, with emphasis on their influence in literature and art.

CLAS 206 - Greek and Roman Religion (3)
The public, personal, and mystery religions of the Greeks and Romans, and the development of classical religious ideas.

CLAS 310 - Women in Antiquity (3)
The nature, roles and lives of women in ancient Greece and Rome.

CLAS 331 - Ancient Greece (3)
Geography, history, and civilization of Greece from the earliest times through the death of Alexander the Great. (Same as History 331).

CLAS 332 - Ancient Rome (3)
Formation, development and demise of the Republic; Augustus and the Empire; and the impact of Christianity. (Same as History 332).

CLAS 380 - Archaeology of the Greek and Roman World (3)
Prerequisite: Art History 114 or History 331 or 332. Study of the archaeological excavation of Greek and Roman sites, with emphasis on problems of archaeological methods and interpretation.

CLAS 451, 452 - Special Studies in Classical Civilization (3)
Reading and study in a specialized area of ancient culture.

CLAS 491 - Individual Study in Classical Civilization (1-4)
Individual study under the direction of a member of the staff. By permission of the Department.

Greek Course Offerings

GREK 131-132 - Elementary Greek (3,3)
Introduction to the language of ancient Greece. Grammar and composition are stressed, leading to translation of literature.

GREK 133, 134 - Intermediate Greek (3,3)
Prerequisites: Greek 131-132 or equivalent. Review of grammar. Selections from various authors.

GREK 351 - Advanced Greek Grammar (1)

GREK 451, 452 - Special Studies in Greek Literature (3,3)
Reading and study of individual Greek authors, genres of literature or of an area of Greek civilization. By permission of the Classics faculty.

GREK 491, 492 - Individual Study in Greek (3,3)
Individual study under the direction of a member of the staff. By permission of the Department.

Latin Course Offerings

LATN 111-112 - Elementary Latin (3,3)
Essentials of Latin grammar and composition; introduction to translating Latin literature.

LATN 113, 114 - Intermediate Latin (3,3)
Pre-requisite: Latin 111-112 or two units of secondary school instruction. Continued study of Latin grammar and composition; readings from Latin prose and/or poetry.

LATN 211, 212 - Survey of Latin Literature (3,3)
Prerequisite: Latin 113, 114, or 4 units of secondary school Latin. Survey of Latin literature from earliest inscriptions to the end of pagan Roman writing.

LATN 301 - Cicero (3)

LATN 302 - Virgil (3)

LATN 303 - Ovid (3)

LATN 304 - Livy (3)

LATN 351 - Advanced Latin Grammar (1)
Required of all majors.

LATN 401 - Roman Drama (3)

LATN 402 - Lyric and Elegiac Writing (3)

LATN 403 - Roman Historical Writing (3)

LATN 404 - Roman Philosophical Thought (3)

LATN 405 - Roman Satire (3)

LATN 451, 452 - Special Studies in Latin Literature (3,3)
Reading and study of individual Latin authors, genres of literature or of an area of Roman civilization. By permission of the Classics faculty.

LATN 491, 492 - Individual Study in Latin (1-3)
Individual study under the direction of a member of the staff. By permission of the Classics faculty.

Philosophy Course Offerings

PHIL 101 - Philosophical Questioning (3)
Critical examination of philosophical writing on traditional problems.

PHIL 111 - Morals and Society (3)
Alternative views of the nature of morality and the impact of these alternatives on social and political institutions.

PHIL 151 - Introduction to Logic (3)
Ancient and modern methods of distinguishing good arguments from bad ones.

PHIL 211 - Ethical Studies (3)
The status and justification of moral judgments, and the reasons behind disagreements in moral issues.

PHIL 212 - Aesthetics (3)
Examination of a variety of attempts to validate norms of taste and of criticism.

PHIL 244 - History of Scientific Thought (3)
The interaction between philosophic thought and the development of the natural sciences.

PHIL 250 - Bioethics (3)
Prerequisite: Biology 121, 122 or by permission of the instructor. Selected topics considered from the standpoint of their biological consequences or ethical implications (same as Biology 250).

PHIL 304 - American Philosophy (3)
Survey of American philosophical thought.

PHIL 306 - Advanced Logic (3)
Prerequisite: Philosophy 151 or completion of 6 credits in mathematics. Theory of formal systems; applied criteria of consistency, completeness and quantification; and other topics in symbolic logic.

PHIL 320 - Philosophical Problems of Law (3)
The relation between moral philosophy and criminal and civil law.

PHIL 321 - Greek Philosophy (3)
A study of selected works from Plato and Aristotle.

PHIL 322 - Medieval Philosophy (3)
A survey of philosophical thought from St. Augustine to William of Ockham.

PHIL 343 - Existentialism (3)
Recent developments in the continental European intellectual and philosophical tradition.

PHIL 354 - Philosophy of Education (3)
Historical and contemporary philosophical examination of the goals and methods of education.

PHIL 371 - Seventeenth and Eighteenth Century Philosophy (3)
Rationalism and empiricism. A survey of major thinkers from Descartes to Hume.

PHIL 372 - Kant (3)
A study of the major works and influence of Immanuel Kant.

PHIL 375 - Hegel, Marx and Nietzsche (3)
A study of European philosophical movements of the 19th century.

PHIL 376 - Contemporary Philosophy (3)
Critical consideration of major philosophical thinkers and movements in the twentieth century.

PHIL 481 - Readings in Philosophy (3)
Discussion of philosophical literature in a field selected by the philosophy faculty after consultation with students.

PHIL 491, 492 - Individual Study (3-6)
Tutorial under the direction of a member of the staff. By permission of the philosophy faculty. Mandatory for students pursuing the degree with honors in philosophy.

PHIL 499 - Internship
Supervised off-campus experience, developed in consultation with the philosophy faculty. Credits variable.

Religion Course Offerings

RELG 105 - Introduction to Religion (3)
Issues of faith, understanding, and the nature of religions are considered in the context of an introductory study of certain major religious traditions (Hinduism, Buddhism, Taoism, Judaism, Christianity, and Islam, among others).

RELG 111 - Introduction to History of Christianity (3)
Selected topics in the development of Christianity and its institutions from the birth of the church to the present.

RELG 117 - Introduction to Christian Theology (3)
The "how" as well as the "what" of theology is explored in relation to basic documents and concepts.

RELG 201 - Judaism (3)
Historical and Religious development of Judaism from biblical times to the present.

RELG 204 - Archaeology and the Bible (3)
Examination of the physical remains of the cultures of the ancient Near East and their relevance to the understanding of the biblical narrative.

RELG 205 - Old Testament (3)
A panoramic view of the religious, literary, historical, and social dimensions of Israel in the context of the ancient Near East through study of biblical texts.

RELG 206 - New Testament (3)
Historical-critical methods of study are introduced and applied in investigating New Testament sources, forms and theological motifs.

RELG 207 - Biblical Studies (3)
Close study of particular topics and texts. Among topics are Gospel Traditions, Prophets and Prophecy, Luke-Acts, Johannine Literature, Romans, I and II Corinthians, The Book of Revelation. May be taken more than once for credit.

RELG 209 - Jesus (3)
Study of various understandings of Jesus and his message from New Testament times until the present. Emphasis on a critical examination of the figure of Jesus in the records of the early church.

RELG 217 - Primitive Religions (3)
Religions of non-literate peoples. Emphasis is on interpretation of myths, rituals, and shamanism.

RELG 220 - Studies in Suffering and Evil (3)
A theological and literary examination of theodicy: "If God is good, whence evil?" Emphasis on humor and death.

RELG 231 - Special Studies in Religion (3)
Among topics taught at different times: Women, Sexuality and Western Religious Tradition, Mysticism East and West, Current Theological Issues, The Roman Catholic Tradition, Introduction to Islam. May be repeated for credit.

RELG 270 - Death and Resurrection (3)
Study of different interpretations of gospel accounts of Jesus' death and resurrection appearances, in the wider context of ancient Near Eastern thought, provides a pattern for interpreting Christian faith. Emphasis on contemporary understandings of the "death and resurrection" theme.

RELG 271 - Studies in Faith and Literature (3)
Study of relationships between Christian faith and literary art in contemporary novels, plays, and films.

RELG 276 - Religion in America (3)
Principal figures, groups, trends, and issues in religion in America from colonial period to the present.

RELG 281 - The Religions of India (3)
Historical development and basic traditions of South Asian religions, especially Hinduism and Buddhism.

RELG 282 - The Religions of China and Japan (3)
Study of the historical development and basic traditions of East Asian religions, especially Buddhism, Confucianism, Taoism, and Shinto.

RELG 306 - Early Christian Thought (3)
The social world and theology of early Christianity from its beginning as a persecuted sect through the debate on the nature of God and Christ in the 4th and 5th centuries.

RELG 313 - 20th Century European Theology (3)
Persons and problems of European theology from Barth and Bultmann to Moltmann and Jngel, from liberal to liberation theology.

RELG 314 - 20th Century American Theology (3)
Study of major theological figures and concerns from Niebuhr and Tillich to theologies of "The Death of God," "secularity," "process," "play," "story," "hopes," and "liberation."

RELG 317 - Religions in Dialogue (3)
If one religion is, in some sense, "true," are other religions rendered "false?" Is it possible to confess the truth of one religion and yet remain appreciatively open to the insights of other religions? This course proposes to work through these and related issues of concern in our "pluralistic" age.

RELG 331 - Special Studies in Religion (3)
Among topics taught at different times: 19th Century Theology, The Reformation: Protestant and Catholic, Medieval Christianity. May be taken more than once for credit.

RELG 341 - Major Religious Thinkers (3)
Among thinkers studied in depth at different times: Paul, Augustine, Luther, Kierkegaard, Elie Wiesel. May be taken more than once for credit.

RELG 401 - Guided Research (3)
Preparation of a senior thesis under the direction of the religion faculty. Required of all senior majors.

RELG 491, 492 - Individual Study (3, 3)
Individual work under the guidance of the religion faculty. By permission of the religion faculty.

RELG 499 - Internship (1-6)
Supervised off-campus learning experience, developed in consultation with the religion faculty.

Classics, Philosophy, and Religion Course Offerings

CPRD 200 - Introduction to Women's Studies (3)
Exploration of questions about sex and gender roles and differentiation, misogyny, and conceptions of male/female experience.

CPRD 299 - Mysterium Humanum Studies (3)
Different topics of fundamental human concern are treated at different times in this interdisciplinary course involving the entire faculty of the Department of Classics, Philosophy and Religion. Topics covered in the past include: Wrestling With Death, The Tempest of Time, and Sex and Society in the West.

Department of Computer Science

Ernest C. Ackermann, *Chair*
John H. Reynolds, *Career Adviser*

Associate Professors
Ernest C. Ackermann (B.A., Montclair State College; M.A., Ph.D., Pennsylvania State University)
John H. Reynolds (A.S., Eastern Oklahoma A&M; B.S., Southeastern State College - Oklahoma; M.S., State University of New York at Stony Brook)

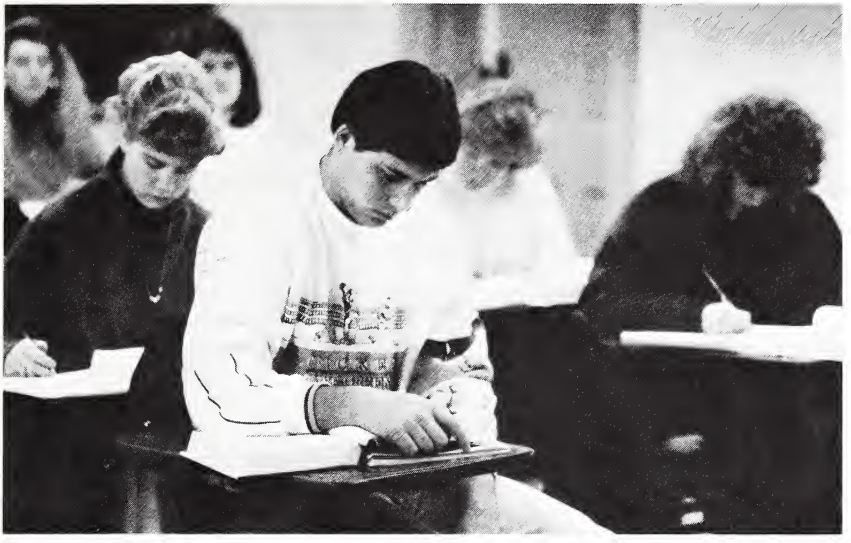
Assistant Professors
Mansour Akbari-Zarin (B.S., School of Planning and Computer Applications, Iran; M.S., Indiana University; Ph.D., The American University)
Marsha F. Zaidman (B.S., Brooklyn College; M.S., George Washington University)

Faculty Interests

Mr. Ackermann's special interests are in data structures, programming languages, and algebra; Mr. Reynolds' main interests lie in simulation and operating systems; Mr. Akbari-Zarin has special interests in theoretical computer science, digital design, algebraic computation, and computer-aided instruction; and Ms. Zaidman's areas of interest are computer graphics and computer science education.

The increasing range of applications for computers in our society, combined with rapid changes in the supporting technology, make Computer Science a dynamic area of study. Developments occur so rapidly that remaining current in the discipline requires a firm foundation in its basic principles and techniques. The department offers courses in the major program to provide that foundation as well as courses on topics at the forefront of the discipline. More general courses are of value and interest to all students at the College.

The major consists of a core of courses in the discipline, a prescribed course in either mathematics or statistics, and at least two upper-level courses in Computer Science chosen from offerings that meet the student's interest. The program follows the guidelines of the Association for Computing Machinery's ACM Curriculum 1978. Additional courses and special studies reflect specialties of the staff; most recently these have included courses in Simulation Techniques, Digital Design, and Computer Graphics. Independent Study provides an opportunity for individual study projects which may lead to graduation with honors. Ample possibilities exist for student internships under the sponsorship of local industry. Employment opportunities for Computer Science graduates are abundant. The department's majors are well prepared for graduate study or employment in areas emphasizing the application of computers and software development to technical or scientific problems.



One of the department's goals is to provide strong hardware and software support for its courses. Currently the principal hardware support is a network consisting of a Hewlett-Packard (HP) 850 minicomputer with associated terminals and workstations (18 in 1989), all using the UNIX operating system. This network, installed in 1989, provides support at the vanguard of computer technology. Students and faculty access these facilities either by using the equipment located near faculty offices or dialing in to modems (10 in 1989). Various printers, graphics devices, and microcomputers are also available to students in the Computer Science Program. The Department Chair can provide technical or other details about the facilities available.

Requirements for the Major

In Major Subject: thirty-two credits in Computer Science including twenty-six credits from 125, 220, 230, 301, 311, 321, 401, and 405; and three credits from 320 or 325; and three credits from 315, 331, 406, 420, 470 through 477, or 491.

Additional Major Requirements: three credits from MATH 351 (Numerical Analysis) or any Computer Science course numbered higher than 299. Note that MATH 122 (Calculus II) is a prerequisite for CPSC 320 and CPSC 325 and should be taken before the junior year. Naturally, courses chosen to satisfy the preceding requirements for the major cannot satisfy the requirements in this category.

Course Offerings

CPSC 102 - Computer Themes and Applications (3)
Introduction to the use of personal computers. Includes discussion of the issues concerning their widespread application in current society. Topics covered

are drawn from areas such as word processing, information management, ethics of computer use, computers and education, and programming languages. This course cannot be taken for graded credit after passing any computer science course numbered 230 or higher.

CPSC 125 - Introduction to Discrete Structures (3)
An introduction to topics which may include induction, recursion, algorithms, set theory, combinatorics, graphs, trees, and finite state machines. (Same as MATH 125: Introduction to Discrete Structures)

CPSC 201 - Programming in BASIC (3)
Introduction to computers, structure of computer systems, algorithm development, program design, structured implementation, and documentation as it relates to writing programs using BASIC. Intended for students who have no experience programming and/or wish to learn the BASIC language. This course cannot be taken for graded credit after passing any Computer Science course numbered 230 or higher.

CPSC 205 - Programming in FORTRAN (3)
Algorithm development, program design, structured implementation, and documentation. This course is intended for students who have no experience programming and/or wish to learn the FORTRAN 77 language. Not for graded credit after passing any Computer Science course numbered 300 or higher.

CPSC 211 - Programming in COBOL (3)
Computer organization, programming, algorithm development and applications in COBOL.

CPSC 215 - Advanced COBOL Programming (3)
Prerequisite: Computer Science 211. The design and development of structured programs that create and maintain advanced file structures. Advanced programming concepts such as the use of the sort utility and other external modules.

CPSC 220 - Computer Science I (4)
Introduction to a disciplined approach to problem solving methods and algorithmic development, procedural and data abstraction. Program design, coding, debugging, testing, and documentation in a block-structured high-level language such as Pascal. Discussion of the evolution of computer hardware and software technology.

CPSC 230 - Computer Science II (4)
Prerequisite: Computer Science 220. Corequisite: Computer Science 125. Development of a disciplined approach to the design, coding, and testing of programs written in a block-structured high-level language such as Pascal. Discussion of the use of data abstraction with implementation of examples such as linked lists, stacks, queues, and trees. Survey of the syntax of FORTRAN with emphasis on effective development and testing of subprograms.

CPSC 301 - Computer Systems and Assembly Language Programming (3)
Prerequisite: Computer Science 230. Computer structure and machine language; number representation and arithmetic; assembly language; addressing techniques; macros; subroutine linkages and recursion; anatomy of assemblers.

CPSC 311 - Computer Organization (3)
Prerequisite: Computer Science 301. Basic logic design; algebraic and graphical minimization techniques; flipflops; characteristics of hardware components; introduction to computer architecture.

CPSC 315 - Digital System Design (3)
Prerequisite: Computer Science 311. Students design and build logic systems in a laboratory setting using integrated circuits available commercially. Topics include asynchronous and synchronous networks as well as microprocessors.

CPSC 320 - Statistics for Computer Scientists (3)
Prerequisites: Mathematics 122 and either Computer Science 205 or Computer Science 230. A calculus-based mathematical statistics course with special emphasis on applications in computer science.

CPSC 321 - Introduction to Data Structures (3)
Prerequisite: Computer Science 230. Introduction to techniques for implementing data structures such as lists, queues, stacks, and trees. Applications of these structures in various situations including file processing.

CPSC 325 - Discrete Structures (3)
Prerequisites: Mathematics 122 and either Computer Science 205 or Computer Science 230. Mathematical models, sets, binary relations and functions, graphs, counting and algebras. (Same as MATH 325: Discrete Structures.)

CPSC 331 - Computer Graphics (3)
Prerequisite: Computer Science 321. An initial course in computer graphics. Students use a graphics package, learn the CORE graphics standard, and study algorithms used in image generation. Topics include: graphic primitives, drawing algorithms, windowing, clipping, projection, and hidden line algorithms.

CPSC 401 - Organization of Programming Languages (3)
Prerequisites: Computer Science 301, 321. An applied course in programming language construction emphasizing the run-time behavior of programs.

CPSC 405 - Operating Systems and Computer Architecture I (3)
Prerequisites: Computer Science 311, 321. Topics include: system structure, paging and segmentation, CPU scheduling strategies, microprogramming, massive parallelism, and memory hierarchies.

CPSC 406 - Operating Systems and Computer Architecture II (3)
Prerequisite: Computer Science 405. Topics include: overlap techniques, pipelined computers, concurrent processes and programming, interrupt strategies, deadlock, RISC machines, and the internals of I/O operations in a multiprogramming environment.

CPSC 420 - Simulation Techniques (3)
Prerequisites: Computer Science 321 and permission of instructor. The SIMSCRIPT II.5 programming language is used to simulate systems such as an aircraft in flight or activities in a supermarket. Two disciplines are presented: the mathematically oriented continuous approach and the statistically based discrete-event approach.

CPSC 470 through 477 - Selected Topics in Computer Science (3)
Prerequisite: Permission of the instructor. Treatment of selected topics in computer science. Most recently this has included topics such as C & UNIX and Expert Systems.

CPSC 491 - Individual Study in Computer Science (1-3)
Prerequisite: Departmental permission. Individual study under the direction of a member of the staff. May lead to graduation with Departmental Honors.

CPSC 499 - Internship
Supervised off-campus experience, developed in consultation with the Department. Credits variable, but only 3 credits may count toward the major.

Department of Dramatic Arts and Dance

Michael Joyce, *Chair*
Jean Hunt, *Career Adviser - Dance*
Robert Ingham, *Career Adviser - Drama*

Associate Professors
Robert Ingham (B.S., University of Virginia; M.F.A., Yale University)
Michael Joyce (B.A., Loyola College; M.F.A., The Catholic University of America)

Assistant Professors
David E. Hunt, Jr. (B.A., State University of New York at Buffalo; M.F.A., University of California at Los Angeles)
Jean Graham Hunt (B.A., Mary Washington College; M.M., Florida State University)

Senior Lecturer
Rosemary Ingham (B.A., University of Montana; Special Student, Yale School of Drama)

Bob Ingham, a member of Actor's Equity, the Screen Actors Guild and the Dramatists' Guild, has had an active career as an actor and playwright. Michael Joyce has directed over forty productions, acted in summer and college theater and works professionally in television. David Hunt has designed over seventy-five productions in college and regional theater. Jean Hunt is interested in anatomy for dancers, and her choreography was selected for first place at the American College Dance Festival. Rosemary Ingham is a nationally renowned costume designer who works with the Utah Shakespeare Festival and has co-written the two standard textbooks on costume design.

The Department offers a Performing Arts major with emphasis in two disciplines: Dramatic Arts and Dance. These provide programs on which students can build further professional or graduate work, or which may be useful throughout the liberal arts endeavor. Many students use the courses in conjunction with Business, Education, English, and Philosophy majors.

Techniques, theories, history, and literature are included in both emphases. Essential to the program is the variety of courses available. Equally essential are the many opportunities to perform in or work on either dance or theatre productions.

The program emphasizes student leadership and responsibility. Students design, direct, choreograph and stage-manage main stage productions, as well as fulfilling other positions of leadership in the Department. Two organizations, Tri-Muse and a chapter of Alpha Psi Omega promote participation and recognize outstanding achievement.

The Department's major drama productions are presented in the 295 seat Klein Memorial Theatre in DuPont Hall. Recent productions have

included *The Importance of Being Earnest, Dracula, The Bacchae, Quilters, Happy Days, and All's Well That Ends Well.* The Mary Washington College Dance Company, a vital part of campus cultural life, presents performances of modern dance, jazz, and ballet in either the Klein Theatre or the 1600 seat Dodd Auditorium.

Lectures and performances by visiting scholars and artists enrich the program. In recent years the campus has hosted such artists as Agnes de Mille, Paul Taylor, Douglas Hamby, the Mathews-Masters Dance Company, Frederick Franklin, Norma Dalby and Gus Solomons.

The Department of Dramatic Arts and Dance offers a major in Performing Arts with a concentration in either Dance or Drama.

Requirements for the Performing Arts Major

Core Courses: DRAM 113, DRAM 218, two credits selected from DANC 221, 222, 223, 224, 241, 242. Performing Arts Senior Project (DANC 482 or DRAM 482). All majors are required to enroll in Performing Arts Practicum each semester. Students may count eight credits toward graduation.

Dance Emphasis: four credits selected from DANC 221, 222, 321, 322; eight credits selected from DANC 223, 224, 323, 324; DANC 243, DANC 252, DANC 312, DANC 460.

Drama Emphasis: DRAM 211, 212, 321, 361, 362, 431, 432; three credits selected from DRAM 341, 433, 434.

Dance Course Offerings

DANC 121, 122 - Beginning Ballet (1, 1)
For students satisfying the physical education requirement. S/U credit only.

DANC 123, 124 - Beginning Modern Dance (1, 1)
For students satisfying the physical education requirement. S/U credit only.

DANC 141, 142 – Beginning Jazz (1, 1)
For students satisfying the physical education requirement. S/U credit only.

DANC 221, 222 - Intermediate Ballet (2, 2)
Ballet as a discipline, emphasizing exactness and precision of line, creative expression, and historical reference. Performance courses continue with 321, 322 and 421, 422.

DANC 223, 224 - Intermediate Modern Dance (2, 2)
Study of the various techniques emphasizing alignment, strength, flexibility, and the aesthetic elements of dance. Performance courses continue with 323, 324, and 423, 424.

DANC 241, 242 - Intermediate Jazz (2, 2)
Study of jazz dance techniques and exploration of movement as related to jazz music. Performance courses continue with 441 and 442.

DANC 243 - Dance Improvisation (3)
Exploration of spontaneous dance composition through manipulation of spatial, temporal, and dynamic qualities of movement.

DANC 251 - History of Ballet (3)
Ballet in France, Italy, Russia, and England from the 15th to the 20th century.

DANC 252 - American Dance Heritage (3)
Readings and research in American dance, including the Indian, Black, Modern Dance, and Jazz.

DANC 253 - Ethnic Dance (3)
Prerequisites: Dance 122, 124. The study of the history and culture of Western and Eastern countries through dance. Performance of selected dances.

DANC 270, 271 - Special Studies in Dance (1-3 each)
Concentration on a single area of dance. Topics vary from year to year.

DANC 312 - Dance Composition (3)
Prerequisite: Dance 243. Basic study of the elements of dance composition.

DANC 321, 322 - Advanced Ballet (2, 2)

DANC 323, 324 - Advanced Modern Dance (2, 2)

DANC 341, 342 - Advanced Jazz (2, 2)

DANC 390 - Performing Arts Practicum: Mary Washington Dance Company (1-2)
Performance in the Dance Company. Admission by audition. May be repeated for credit.

DANC 441, 442 - Advanced Jazz (2, 2)

DANC 451, 452 - Special Studies in Dance (1-3 each)
Concentration on a single area of dance. Topics vary from year to year.

DANC 461 - Teaching Seminar (3)
Prerequisite: 6 credits of Dance Technique. The science and structure of dance training.

DANC 482 - Senior Project (2)
Prerequisite: Permission of the adviser. May be taken only in one of last four semesters. An independent project in Dance supervised by the student's adviser.

DANC 491, 492 - Individual Study (1-3 each)
Research, choreography, or composition of an approved creative project. By permission of the Department.

DANC 499 - Internship
Supervised, off-campus experience, developed in consultation with the Department. Credits variable.

Dramatic Arts Course Offerings

DRAM 111 - Introduction to Theatre (3)
A course for the general student designed to introduce the various elements of theatrical production.

DRAM 113 - Introduction to Theatre Design (4)
A study of design elements and composition principles as they relate to stage scenery, costumes, and lighting. A survey of theatre design today and practical introduction to stagecraft techniques. Laboratory.

DRAM 131, 132 - Stagecraft (4, 4)
Theories and techniques of designing, building, and painting stage settings; organizations and operation of production crews. Laboratory.

DRAM 211, 212 - Dramatic Literature (3, 3)
The reading and discussion of selected plays and of theatrical developments as an introduction to the theatre.

DRAM 218 - Voice and Body Movement (3)
Voice and body training to improve vocal quality, articulation and posture and carriage. Designed for non-majors and majors.

DRAM 240 - Stage Makeup (3)
Techniques and styles of stage makeup for theatre and dance.

DRAM 241 Dance Production (3)
Theories and Techniques of dance production involving management, budget, sound and music, production design, rehearsal and performance. Course work supplemented with practical production experience.

DRAM 242 - Costumes and Clothing Construction (3)
An introduction to the principles of pattern development and clothing construction techniques. Projects will include contemporary and period styles. Students will work on costumes for departmental productions. Laboratory.

DRAM 250S, 251S - Fredericksburg Theater Company (3, 3)
Apprenticeship, including acting and technical work, in the Fredericksburg Theater Company during the summer.

DRAM 261 - Exercises in Creativity (4)
A course exploring the definitions of creativity, the theories behind creative behavior, and practical exercises to promote and enhance critical and creative thinking, problem solving, and creativity.

DRAM 270, 271 - Special Studies in Dramatic Arts (3, 3)
Concentration on a single area of dramatic arts for general students. Topics vary from year to year.

DRAM 310 - Fashion History (3)
A survey of clothing, hair styles, and accessories from the ancient world to the present, with particular emphasis on the relationship of fashion to social, political and economic history.

DRAM 321, 322 – Acting (3, 3)
Scene study and performance, creating characters and ensemble training.

DRAM 331, 332 - Playwriting (3, 3)
Writing for the stage. Exercises and practice in the structure of action, character development, dialogue, critical analysis.

DRAM 341 - Costume and Clothing Design (3)
History and basic principles of costume design, use of historic period, silhouettes, stylization, color, and construction to create and enhance the theatrical illusion. Laboratory.

DRAM 351 - Screenwriting (3)
An introduction to writing for the camera, especially the modern, commercial feature film, with consideration of other forms of film and television structure.

DRAM 361, 362 - History of the Theatre (3, 3)
Theatres, production methods, dramatic conventions, key figures from the Greek period to the present in the Western world.

DRAM 390 - Performing Arts Practicum: Production (1-2 each)
Prerequisites: for technical work, Dramatic Arts 131, 132; for acting, Dramatic Arts 321, 322. Prerequisites may be taken concurrently or equivalent experience may be substituted. By permission of the Department. Theatre Practicum awards credit for performance or production work on major productions of the Department. Students may count only 8 credits in a 122-hour program.

DRAM 431, 432 - Directing (3, 3)
Technique and practice of directing for the stage.

DRAM 433 - Stage Lighting (3)
Prerequisite: Dramatic Arts 113. Theories and techniques of lighting stage productions; lighting instruments and equipment.

DRAM 434 - Scene Design (3)
Prerequisite: Dramatic Arts 113. A study of the theories, methods, and techniques used in scenic design.

DRAM 451, 452 - Special Studies in Dramatic Arts (3, 3)
Concentration on a single area of dramatic arts. Topics vary from year to year.

DRAM 482 - Senior Project (2)
Prerequisite: Permission of the advisor. This course may only be taken in one of the last four semesters. An independent project in Dramatic Arts supervised by the student's adviser.

DRAM 491, 492 - Individual Study (1-3 each)
Individual study under direction of a member of the Department. By permission of the Department.

DRAM 499 - Internship
Supervised off-campus experience, developed in consultation with the Department. Credits variable.

Department of Economics

Robert S. Rycroft, *Chair*
Steven A. Greenlaw, *Career Adviser*

Professor
Robert S. Rycroft (B.A., College of William and Mary; M.A. and Ph.D., University of Maryland)

Associate Professor
Shah M. Mehrabi (A.A., De Anza College; B.S., California Polytechnic State University, San Luis Obispo; M.A. and Ph.D., University of Cincinnati)

Assistant Professors
Steven A. Greenlaw (B.A., College of William and Mary; M. A. and Ph.D., SUNY-Binghamton)
Richard P. Hydell (B.A., Oberlin College; Ph.D., Massachusetts Institute of Technology)
Anthony E. Jiminez (B.A., Youngstown State University; Ph.D., University of New Mexico)
Stephen P. Stageberg (B.S., M.A., and Ph.D., Georgetown University)

Robert Rycroft's interests include labor economics and economic forecasting, and he is an internationally known reviewer of econometric software. Shah Mehrabi is an internationally known specialist in economic development and multi-national corporations, and is also an active marathoner. Steven Greenlaw's specialties are international finance and economic theory, and he plays soccer in his spare time. Richard Hydell is an economic historian and college basketball buff. The economics of natural resources and environmental protection is the chief academic interest of Anthony Jiminez. His chief non-academic interest is jazz. Former world-class distance runner Stephen Stageberg is interested in international economics, the history of economic thought, and technological change.

The Department offers a contemporary curriculum in economics designed for the student planning on graduate, law, or other professional school, employment in business or government, or wanting to study economics within the framework of the liberal arts.

The discipline of economics is as broad as it is exciting. Far from being simply the study of business, economics is a method of analyzing individual behavior in environments characterized by scarcity. Inflation, unemployment, the energy crisis, environmental problems, poverty, discrimination, economic growth and development, marriage and childbearing, and the proper role of government in society are only a sample of the issues with which economists grapple.

Students are encouraged to develop an "economic way of thinking." This skill is invaluable to understanding national and international economic issues as well as to making personal economic decisions. Students are trained in the quantitative skills commonly used to aid making

decisions in business, government, education and research. The College's proximity to Washington and a supportive local business community create many stimulating internship opportunities. Students with superior academic records in economics who write an acceptable research paper are eligible for honors.

Associated with the Department are two organizations that promote the study of economics. The Economics Club is open to all students. It encourages discussion of current issues, sponsors speakers and social events, and kindles interaction among students and faculty. Omicron Delta Epsilon is a national economics honor society for students with superior academic records. Each year at convocation the Department presents two awards to graduating seniors. The Henry W. Hewetson Award honors academic achievement and service to the Department. It consists of a prize and cash stipend. The James Harvey Dodd award is given to a senior planning further study in economics. It is a scholarship worth approximately $1,000.00

The standard introductory courses for students of economics are at the 200 level. These courses prepare students for the 300-level surveys in selected areas. Students may select 400-level courses after they have met the appropriate prerequisites.

Requirements for the Major

ECON 201, 202, and 33 credits in upper-level economics courses including 303, 304, 361, 462, and either 373, 374 or 375.

Course Offerings

ECON 101 - Elements of Economics (3)
One semester introduction to economic theory and contemporary economic issues. Students receiving credit for ECON 201 cannot receive credit for ECON 101.

ECON 201 - Principles of Macroeconomics (3)
The economic problem, economic systems, and an introduction to the theory of national income determination.

ECON 202 - Principles of Microeconomics (3)
Prerequisite: ECON 201. Economic analysis of households, firms and the public sector. Contemporary problems involving markets.

ECON 303 - Microeconomics (3)
Prerequisites: ECON 201 and 202. Systematic study of the role of the price system in organizing economic activity and an evaluation of its effectiveness.

ECON 304 - Macroeconomics (3)
Prerequisites: ECON 201 and 202. Analysis of determining national income, employment and the price level. Stabilization and growth policies.

ECON 311 - Industrial Organization (3)
Prerequisites: ECON 201 and 202. Economic analysis of the structure, conduct, and performance of industry. Topics include the nature of competition, innovation, pricing policies, advertising, political influence, antitrust policies and regulation.

ECON 312 - Government and Business (3)
Prerequisites: ECON 201 and 202. The rationale for and impact of government participation in the marketplace. Topics include antitrust laws and policies and regulation.

ECON 321 - Money and Banking (3)
Prerequisites: ECON 201 and 202. The nature and functions of money, banking organization and practices, and the role of the monetary sector in the determination of income, employment and prices.

ECON 322 - Investment Analysis (3)
Prerequisites: ECON 201 and 202. Introduction to portfolio theory and the evaluation of investment alternatives. Topics include the stock market and the valuation of securities.

ECON 331 - Environmental and Resource Economics (3)
Prerequisites: ECON 201 and 202. The application of economic methods to the analysis of environmental and natural resource issues. Public policy issues will also be considered.

ECON 332 - Economics of Health (3)
Prerequisites: ECON 201 and 202. A survey of market behavior, institutions, and public policy in the provision of health services.

ECON 341 - Government Finance (3)
Prerequisites: ECON 201 and 202. An analysis of the appropriate role of government in the allocation of resources.

ECON 351 - Labor Market Analysis (3)
Prerequisites: ECON 201 and 202. Analysis of the operation of labor markets emphasizing the problems of poverty and discrimination.

ECON 353 - Economics of Labor Unions (3)
Prerequisites: ECON 201 and 202. Economic analysis of the structure, behavior and impact of unions. The history of the American Labor Movement will also be considered.

ECON 354 - Urban Economics (3)
Prerequisites: ECON 201 and 202. An economic analysis of contemporary urban topics including location theory and the economic structure of cities, growth and development of central cities and ghettos, housing, transportation, poverty, crime, and fiscal issues.

ECON 361 - Introductory Econometrics (3)
Prerequisites: ECON 201 and 202. An introduction to the statistical methods used in economics.

ECON 373 - Marxian Economics (3)
Prerequisites: ECON 201 and 202. An introduction to the economic theories of Marx and his followers. Topics include value theory, historical materialism, structure of classes, dynamics of accumulation and alienation.

ECON 374 - History of Economic Thought (3)
Prerequisites: ECON 201 and 202. A survey of economic analysis from antiquity to the 20th century. Focus on the 18th and 19th centuries.

ECON 375 - American Economic History (3)
Prerequisites: ECON 201 and 202. The study of factors contributing to the economic development of the United States, including the historical

growth of economic institutions such as agriculture, banking, labor unions, and manufacturing.

ECON 382 - International Economics (3)
Prerequisites: ECON 201 and 202. An introduction to international trade, the balance of payments, exchange rate determination, and related issues of foreign economic policy.

ECON 383 - Comparative Economic Systems (3)
Prerequisites: ECON 201 and 202. Analysis and comparison of alternative economic systems, highlighting Capitalism, Socialism, and Communism. Emphasis on underlying theory, institutions and selected problems associated with these economic systems.

ECON 384 - Economic Development (3)
Prerequisites: ECON 201 and 202. An introduction to the economic characteristics and current problems of developing countries, theories of economic development and alternative policies and reforms required for third world countries.

ECON 405 - Contemporary Economic Issues (3)
Prerequisites: ECON 201, 202, 303 and 304. Discussion of contemporary issues in economic theory and policy.

ECON 461 - Mathematical Economics (3)
Prerequisites: ECON 201, 202, 303, 304; MATH 121. Use of mathematical methods in economic analysis. Topics will include equilibrium analysis, comparative statics, and optimization.

ECON 462 - Economic Forecasting (3)
Prerequisite: ECON 201, 202, 361. Specification, estimation, evaluation and simulation of forecasting models. Survey of econometric, time-series, and leading indicator techniques.

ECON 482 - International Finance (3)
Prerequisite: ECON 201, 202, 382. Survey of the major topics in contemporary international finance: exchange rate determination, balance of payments adjustment, eurocurrency markets and international banking, currency speculation, international borrowing and lending and the international debt crisis.

ECON 491 - Individual Study in Economics (3)
Prerequisites: ECON 201 and 202. Directed individual research on an approved topic in economics.

ECON 498 - Economics Seminar (3)
Prerequisites: ECON 201 and 202. Special topics of interest to faculty and students.

ECON 499 - Internship (Credits variable; up to six hours may count in the major)
Prerequisites: ECON 201 and 202. Supervised off-campus experience, developed in consultation with the Department.

Department of Education

Brenda E. Vogel, *Chair*
Paul M. Zisman, *Career Adviser*

Distinguished Professor
Paul C. Slayton, Jr. (B.S., M.Ed., Ed.D., University of Virginia)

Professors
Brenda E. Vogel (B.F.A., Virginia Commonwealth University; M.A., Ed.D., Virginia Polytechnic Institute and State University)
Paul M. Zisman (B.A., College of William and Mary; M.A.T., Howard University; Ph.D., The Catholic University of America)

Senior Lecturer
Adrienne C. May (B.A., M.A.L.S., Mary Washington College; Doctoral Candidate, University of Virginia)

Venitta McCall (B.S., Niagara University; M.B.A., University of North Florida; Doctoral Candidate, Virginia Polytechnic Institute and State University)

Paul Slayton, who has battled censorship on the local, state and national levels, has also coauthored *Virginia History and Government: 1850 to the Present,* a textbook used by 7th grade students in Virginia schools. Brenda Vogel, faculty counselor to Kappa Delta Pi, Nu Xi Chapter, is particularly interested in the learning of language processes and such social issues as sexism and racism in educational practice. Paul Zisman, faculty adviser to the *Polemic* and to the Asian Student Association, has done research on Hispanic immigrants, group relations in schools, and the genealogy of values. Adrienne May, an active Phi Beta Kappan, is interested in undergraduate writing programs and educational policy analysis.

The role of the Department is to help develop the competencies and dispositions necessary for successful teaching in elementary or secondary schools. The Department offers, as electives, courses designed to prepare the liberal arts student to meet requirements for certification as a teacher. The teacher education programs at the College are approved by the Virginia State Department of Education, the State Council of Higher Education of Virginia, and the National Association of State Directors of Teacher Education and Certification. In addition to full preparation for teaching, a Mary Washington College student may complete a foundation program which, with additional study at the graduate level, can provide entry into such professional specializations as special education, educational psychology, school administration, instructional supervision, and guidance and counseling.

The Department sponsors the Nu Xi Chapter of Kappa Delta Pi, an international honor society in education, and the Student Education Association of the Virginia Education Association, a National Education Association affiliate. The Lester D. Crow scholarship is awarded each semester to an outstanding student teaching applicant and the Mary Jo

Kleiner-Phillips scholarship is awarded annually to an outstanding junior or senior student seeking teacher certification in the elementary grades. The Edward E. Alvey, Jr. scholarship is awarded annually to a rising senior seeking teacher certification who best demonstrates a commitment to teaching as exemplified by the career of Dean Emeritus Alvey. The Beulah M. Hartman Scholarship is awarded annually to an undergraduate with demonstrated financial need who plans to seek teacher certification and a career in education. Virginia State scholarships/loans are available for mathematics, science, and foreign language teachers. U.S. Congressional (Paul Douglas) Scholarships are available for juniors and seniors who graduated from high school in the top 10% of their class. Recipients are chosen in state-wide competition from nominees who are formally enrolled in programs leading to teacher certification.

Entrance, Retention, and Exit Criteria

Any Mary Washington student may take courses offered by the Department of Education as electives. However, admission into a program leading to certification is by formal application which must be submitted to the Department by September of the junior year, or at the end of the first semester in residence by upper division transfer and special students. Criteria for acceptance into a certification program include: (a) SAT scores of 850 or better (or satisfactory NTE Communication Skills and General Knowledge scores if requested); (b) no felony convictions; (c) satisfactory performance in writing intensive and mathematics courses; (d) good academic standing with a 2.5 G.P.A. or better; (e) satisfactory writing sample indicating interest or aptitude in teaching; and (f) successful completion of Cycle I courses. In addition, formally enrolled students must apply to the Department for permission to enroll in Education 440, Supervised Teaching. Criteria for admission to student teaching include: (a) application, including a writing sample; (b) recommendation by an education advisor; (c) recommendations by the major program chairperson and one other professor; (d) satisfactory evaluations in pre-student teaching field experiences; (e) good academic standing with a minimum 2.5 G.P.A. in the major and overall and a 2.8 in the professional studies sequence; and (f) successful completion of Cycle II courses. Final recommendation for certification is contingent upon: (a) a 2.5 G.P.A. in the major and overall and a 2.8 in the professional studies sequence; (b) completion of degree requirements; (c) a grade of "C" or better in student teaching; (d) successful completion of Cycle III courses; and (e) passing NTE scores on communication skills, general knowledge, professional knowledge and specialty area examinations as established by the Virginia State Board of Education.

Programs of study offered by the Department lead to certification with endorsement to teach in the following grades and/or disciplines: elementary grades (nursery, kindergarten to grade 6); comprehensive certification (nursery, kindergarten through grade 12) in art, computer science (currently pending State approval) and music; and middle and secondary certification (grades 6-12) in each of the following disci-

plines: Biology, Chemistry, English (Speech, Journalism and Drama), Environmental Earth Science, French, General Science, Geography, German, Government, History, History and the Social Sciences, Latin, Mathematics, Physics, Social and Cultural Anthropology, and Spanish.

All teacher education programs at Mary Washington have general education, liberal arts or sciences major/endorsement, and professional studies components. Consequently, students interested in seeking certification to teach should see an Education Department advisor as early in their college career as possible. The professional studies component, or actual education courses, is developed sequentially through three cycles: Cycle One - Introduction to Current Teaching Competencies introduces students interested in teaching to basic educational concepts and current teaching practices by coursework and extensive field experience. Cycle Two - Initiation into Developmental Teaching initiates prospective teachers into the processes of education and the theories and uses of developmental teaching approaches. Cycle Three: Explorations in Educational Decision Making provides explorations in monitoring one's own professional growth through research, reflection and problem solving. Because these cycles are developmental, courses from one cycle must be completed before beginning those in the next.

Elementary Certification Program: Nursery School, Kindergarten to Grade Six

EDUC 205 - Children's Literature (3)
A survey of children's literature emphasizing literary forms, social issues and creativity.

Cycle One: Introduction to Current Teaching Competencies

EDUC 200 - Introduction to Teaching (2)
An introduction to the elementary school through structured field experience and accompanying seminar. Field experience required.

EDUC 300 - Instructional Skills for the Elementary School (4)
Diagnostic-prescriptive approach to teaching applied to language arts, science, mathematics, creative arts and social studies. Includes diagnosing, setting behavioral objectives, choosing appropriate procedures, and evaluating student progress. Field experience required.

Cycle Two: Initiation into Developmental Teaching

EDUC 350 - Developmental Teaching in the Elementary School (3)
Applies cognitive theories to the teaching of mathematics, science and social studies. Field experience required.

EDUC 370 - Language Processes (3)
Facilitating the learning of language processes through knowledge of language development. Emphasizes whole language, writing process and literature-based approaches. Field experience required.

EDUC 382 - Social Processes in the Elementary Classroom (3)
Addresses classroom management and discipline issues within the social context of the classroom. Emphasizes approaches which enhance the self concept of the learner. Field experience required.

Cycle Three: Explorations in Educational Decision Making

EDUC 420 - The Professional Teacher and the American School (3)
Prospective teachers become independent, reflective decision-makers by critically examining the philosophical, ethical, historical, legal, and social contexts of the American school.

EDUC 439 - Classroom Teaching and Research (3)
Student teachers reflect on the lessons and programs they design by applying problem solving and decision-making techniques to the task of teaching. Taken concurrently with EDUC 440.

EDUC 440 - Supervised Teaching (9)
Orientation to teaching under the direction of cooperating teachers in the public schools.

Secondary Endorsement Programs: Teaching the Disciplines, Grades Six through Twelve.

Cycle One: Introduction to Current Teaching Competencies

EDUC 200 - Introduction to Teaching (2)
An introduction to the secondary school through structured field experience and accompanying seminar. Field experience required.

Cycle Two: Initiation into Developmental Teaching

Students will select the appropriate discipline-specific course. This

series of "teaching of" courses 1) reviews the instructional and managerial techniques and the diagnostic-prescriptive approach to teaching explored in EDUC 200; 2) relates this approach to the curricular objectives and instructional methods of the particular content area; and 3) introduces and examines content area-specific developmental approaches to teaching in the secondary schools. Field experience required.

EDUC 319 - The Teaching of Foreign Language (4)

EDUC 321 - The Teaching of Mathematics (including Computer Science) (4)

EDUC 322 - The Teaching of Social Sciences (4)

EDUC 323 - The Teaching of Sciences (4)

EDUC 324 - The Teaching of English (including Drama, Speech and Journalism) (4)

EDUC 351 - Developmental Teaching in the Secondary School (4)
An overview of developmental approaches, with emphasis on recognizing language and thinking processes as the underpinnings of secondary developmental teaching. Field experience required.

EDUC 381 - Social Processes in the Secondary Classroom (3)
Classroom management and discipline practices based on research and theories of personality, social influences and instruction of pubescents and adolescents. Field experience required.

Cycle Three: Explorations in Educational Decision Making

EDUC 420 - The Professional Teacher and the American School
Prospective teachers become independent, reflective decision-makers by critically examining philosophical, ethical, historical, legal, and social contexts of the American school.

EDUC 440 - Supervised Teaching
Orientation to teaching under the direction of cooperating teachers in the public schools.

Art, Computer Science (State approval pending), and Music Programs: Nursery School, Kindergarten through Grade Twelve

Cycle One: Introduction to Current Teaching Competencies

EDUC 200 - Introduction to Teaching (2)
An introduction to the secondary school through structured field experience and accompanying seminar. Field experience required.

Cycle Two: Initiation into Developmental Teaching

Art (NK-12)

EDUC 320 - The Teaching of Art (4)

EDUC 350 - Developmental Teaching in the Elementary School (3)
Applies cognitive theories to the teaching of mathematics, science and social studies. Field experience required.

EDUC 351 - Developmental Teaching in the Secondary School (4)
An overview of developmental approaches, with emphasis on recognizing language and thinking processes as the underpinnings of secondary developmental teaching. Field experience required.

EDUC 381 - Social Processes in the Secondary Classroom (3)
Classroom management and discipline practices based on research and theories of personality, social influences and instruction of pubescents and adolescents. Field experience required.

Computer Science (NK-12)

EDUC 321 - The Teaching of Mathematics (and Computer Science) (4)

EDUC 350 - Developmental Teaching in the Elementary School (3)
Applies cognitive theories to the teaching of mathematics, science and social studies. Field experience required.

EDUC 351 - Developmental Teaching in the Secondary School (4)
An overview of developmental approaches, with emphasis on recognizing language and thinking processes as the underpinnings of secondary developmental teaching. Field experience required.

EDUC 381 - Social Processes in the Secondary Classroom (3)
Classroom management and discipline practices based on research and theories of personality, social influences and instruction of pubescents and adolescents. Field experience required.

Music (NK-12)

EDUC 317 - The Teaching of Music Ensembles (4)

EDUC 318 - The Teaching of Music (4)

EDUC 381 - Social Processes in the Secondary Classroom (3)
Classroom management and discipline practices based on research and theories of personality, social influences and instruction of pubescents and adolescents. Field experience required.

Cycle Three: Explorations in Educational Decision-Making

EDUC 420 - The Professional Teacher and the American School (3)
Prospective teachers become independent, reflective decision-makers by critically examining the philosophical, ethical, historical, legal, and social contexts of the American school.

EDUC 440 - Supervised Teaching (9)
Orientation to teaching under the direction of cooperating teachers in the public schools.

Service Courses

EDUC 349 - Physical Education for the Elementary Teacher (3)
Movement skills for children; includes movement exploration, creative rhythms, folk dance, games, and self-teaching for physical fitness.

EDUC 441, 442, 443 - Supervision Seminar for Cooperating Teachers (2 each)
Prerequisite: Selection to serve as a cooperating teacher. A sequence of seminars in educational supervision available only to classroom teachers serving as

Department of English, Linguistics, and Speech

Susan J. Hanna, *Chair*
Delmont Fleming, *Career Adviser, English*
John Morello, *Career Adviser, Speech*
Marjorie Collins, *Career Adviser, Linguistics*

Distinguished Professor
Donald E. Glover (B.A., College of William and Mary; Fulbright Fellow, University of Adelaide, South Australia; M.A., Ph.D., University of Virginia; 1976 Simpson Award for Excellence in Teaching)

Professors
Nathaniel H. Brown (B.A., Princeton University; M.A., Syracuse University; Ph.D., Columbia University)
Daniel A. Dervin (B.A., Creighton University; M.A., Ph.D., Columbia University)
Delmont F. Fleming (B.A., Eastern Baptist College; MA, Ph.D., University of Pennsylvania).
Susan J. Hanna (B.A., Ohio State University; M.A., Ph.D., University of Michigan; 1985 Simpson Award for Excellence in Teaching)
Richard E. Hansen (B. A., M. A., Ph.D., Duke University)
William Kemp (B.A., Millsaps College; M.A., Mississippi State University; Ph.D., University of South Carolina)
Raman K. Singh (B.A., St. Stephen's College, Delhi; M.A., Western Michigan University; Ph.D., Purdue University).

Associate Professors
Marjorie O. Collins (B.A. Hons., Wales; Ph.D., University of Michigan; Diploma of Linguistics, University of London)
Carol S. Manning (B.A., Delta State College; M.A., University of Kentucky; Ph.D., State University of New York, Albany)
John T. Morello (B.A., College of William and Mary; M.A., Northern Illinois University; Ph.D., Wayne State University)

Assistant Professor
Taddesse Adera (B.A., Addis Ababa University; M.A., University of Washington; doctoral candidate, University of Washington)

Instructor
Judith A. Parker (B.A., Sarah Lawrence College; M.A., Brown University; doctoral candidate, Brown University)

Senior Lecturer
Constance F. Smith (B.A., University of Maryland; M.A., University of Pennsylvania).

Areas of Faculty Interest

Taddesse Adera: Anglophone African literature, 19th century British literature. Nathaniel Brown: Romantic poetry and prose, with special interest in Shelley and Byron; women in literature. Marjorie Collins:

medieval literature; versions of the Arthurian romance; linguistics, sociolinguistics. Daniel Dervin: the modern period, especially Joyce, D. H. Lawrence, and Yeats; modern drama; psychoanalytic theory; creative writing. Delmont Fleming: American literature, especially American Romanticism, Southern literature, and the ghost story; myth in literature. Donald Glover; American literature, especially Henry James; modern poetry; Tolkien and C. S. Lewis; fantasy; literary theory. Susan Hanna: Victorian literature; comedy; early twentieth-century poetry. Richard Hansen: Restoration and eighteenth-century English literature; prose fiction. William Kemp: English Renaissance literature, especially Shakespeare; eighteenth-century English literature; textual criticism. Carol Manning: journalism; theories of writing; Southern literature; women in literature. John Morello: debate, rhetorical theory. Judith Parker: linguistics, particularly psycholinguistics; speech processing; dyslexia; short fiction. Raman Singh: American literature, especially black literature; non-Western literature. Constance Smith: Shakespeare, women's studies, poetry.

The Department of English, Linguistics, and Speech combines three disciplines whose common concern is the English language. In English courses students investigate the great body of literature written in the language, and develop skills in their own writing: analytic, creative, journalistic. In linguistics courses students examine the nature of language – how languages are put together, and how they function socially and culturally. Speech courses expose students to the theory and practice of spoken English. All three disciplines combine historical perspective with close instruction in critical/analytical skills, in creative expression, and in theoretical approaches.

The Department's major program, while it emphasizes a strong basis in literature, encourages students to follow individual interests in literature, writing, or linguistics. The core requirements ensure familiarity with the language, with literature, with literary theory, and with the demands of writing, while the four additional courses allow students to diversify farther or to emphasize one particular area. Many students include internship credit in their programs, testing classroom knowledge in the outside world.

A number of other activities, such as the Poetry/Fiction reading series, afternoon and evening lectures, and social events, bring professors and students together informally. Qualified students are invited to join Lambda Iota Tau, a national literature honor society.

While the Department has no specific ideology, it is devoted to rigorous thought, mastery of detail, and intellectual honesty. Many students combine studying literature or writing with majors in other disciplines. About 20 percent of the majors also certify for elementary or secondary teaching. Others go on to graduate or professional school. Still others take jobs in everything from the unusual and exotic, through the myriad shadings of journalism and public relations, to government and business. The specific skill nourished by majoring in English which employers value most is exact writing, but like all humane disciplines, English teaches complexity of thought and subtlety of feeling. What unites all English majors is joy in the language and love for its literature.

English courses on the 200 level are open to students from all disciplines. 300-level courses offer students chances to do more sophisticated writing and to explore works of literature defined by period, genre, or theme. All classes are kept to a size to facilitate discussion and individual attention, and in the 400-level seminar classes, students make major contributions to the classes, presenting original papers.

Courses in linguistics offer the student, regardless of special interest, an understanding of the fundamental structure of language and, in conjunction with other disciplines, an opportunity to explore the acquisition of language in cultures and societies. Linguistic courses are a valuable complement to any major that deals with language, literature, or human communication and interaction.

Speech courses enhance skills in oral communication by exposing students to the theory and practice of public speaking, interpersonal and small group discussion, argumentation, and reading before an audience. Courses on the 200 level are performance courses, kept small to allow individualized instruction in the strategies of effective oral communication. Courses on the 300 level offer an historical and theoretical approach to the study of oral communication in society, from the ideas of the ancient Greeks to the problems of contemporary life. Students interested in more intense training in persuasive speaking can join the College debate team and receive academic credit for participating in regional and national debate tournaments.

Requirements for the English Major

39 credits in English and Linguistics, with a 27-credit core that includes a) ENGL 295, Introduction to Literary Studies, b)LING 101, Introduction to General Linguistics, and LING 305, the English Language, c) 12 credits in upper-level literature courses (6 of these must be in courses dealing with literature written before 1800) d) 3 credits in a 400-level literature seminar, e) and 3 credits in an upper-level writing course. The remaining twelve credits are chosen to suit the interests of the student from a group including ENGL 200, Newsgathering (the only 200-level course other than ENGL 295 that can be included in the major), the department's 300- and 400-courses in writing, literature, and linguistics, and department-sponsored internships and independent study.

English Course Offerings

ENGL 101 - Writing Workshop (3)
Group and tutorial instruction in the fundamental techniques of expository and argumentative writing: organization, development, coherence, research methods, mechanics.

ENGL 200 - Newsgathering (3)
An introduction to the techniques of newsgathering, including practice in interviewing, reporting, and writing various kinds of news stories.

ENGL 201 - Advanced Composition (3)
Development of flexible and effective expository prose through analysis of models and practice with styles and techniques.

ENGL 211 - Survey of English Literature I (3)
Literary movements and types from Beowulf through the 18th century.

ENGL 212 - Survey of English Literature II (3)
Literary movements and types from the Romantic movement to the present.

ENGL 221 - Survey of American Literature I (3)
American backgrounds, literary movements and types from the colonial writers through Whitman.

ENGL 222 - Survey of American Literature II (3)
American backgrounds, literary movements and types from Dickinson to the present.

ENGL 231 - Short Fiction (3)
Study of selected short stories and short novels.

ENGL 232 - The Novel (3)
Study of the form, content, and development of selected novels.

ENGL 233 - Poetry (3)
Close analysis of poetic form and content.

ENGL 234 - Shakespeare (3)
Shakespeare's achievement in selected plays and poems.

ENGL 235 - Tragedy (3)
Tragedy as form and idea in selected works of world literature.

ENGL 236 - Comedy (3)
Comic conventions in selected works of world literature.

ENGL 241 - Fantasy in Literature (3)
Themes, techniques, and structures in the literature of fantasy.

ENGL 242 - Myth in Literature (3)
Myth – cultural, natural, Christian, and classical – in selected literary works.

ENGL 243 - Women in Literature (3)
Study of literature by or about women.

ENGL 244 - Narrative Form in Fiction and Film (3)
Study of narrative technique in novels and film.

ENGL 251 - Issues in Literature (3)
Significant literary figures, movements and topics. Consult *Schedule of Courses* for specific topics.

ENGL 295 - Introduction to Literary Studies (3)
An introduction for prospective majors, and others, to reading literature; develops awareness of the approaches readers use in analyzing literary texts. Explores new approaches and theoretical questions. Required for the major.

ENGL 300 - Principles of Newspaper Writing (3)
Prerequisite: English 200 or permission of the instructor. Practice in writing, reporting, editing, and laying out various kinds of news stories.

ENGL 301 - Principles of Magazine Writing (3)
Prerequisite: English 200 or permission of the instructor. Practice in writing, reporting, editing, and laying out various kinds of magazine articles, with emphasis on feature writing.

ENGL 302 - Creative Writing I (3)
Prerequisite: English 231 or 233 or permission of the instructor. Introduction to writing fiction and poetry. Primary emphasis on developing student abilities to write creatively, with periodic attention to examples from established writers.

ENGL 303 - Creative Writing II (3)
Prerequisite: English 302 or permission of the instructor. Continuation of English 302, with emphasis on more sustained creative writing projects.

ENGL 306 - Topics in Writing (3)
Practice in writing in certain styles and forms. Consult *Schedule of Courses* for specific topics and prerequisites.

ENGL 309 - Chaucer and His Age (3)
Primarily Chaucer's *Canterbury Tales*, with some attention given to other lyric, heroic, or romance narratives of medieval England.

ENGL 311 - Arthurian Romance (3)
The growth and development of the Arthurian romance from the 12th to the 20th century with special but not exclusive focus on its development in English medieval literature, painting, and manuscript illumination.

ENGL 315 - English Drama Through the Restoration (3)
Origins and development of English drama through the Restoration. Includes miracle and morality plays, and Elizabethan, Jacobean and Restoration drama.

ENGL 316 - Renaissance and Baroque Literature (3)
English nondramatic literature of the 16th and 17th centuries emphasizing Sidney, Spenser, Donne, Jonson, and Milton.

ENGL 319 - Shakespeare: The Early Plays (3)
Shakespeare's early development, focusing on the comedies and history plays.

ENGL 320 - Shakespeare: The Later Plays (3)
Shakespeare's later development, focusing on the tragedies, problem plays, and final romances.

ENGL 325 - The Age of Neoclassicism (3)
English literature during the Restoration and the early 18th century, with emphasis on the revival of classical aesthetics and forms.

ENGL 326 - The Age of Sense and Sensibility (3)
English literature during the second half of the 18th century, with emphasis on the transition from Neoclassicism to Romanticism.

ENGL 333 - The British Novel to 1945 (3)
Growth of the English novel from its origins to the Second World War.

ENGL 334 - The American Novel to 1945 (3)
Growth of the American novel from its origins to the Second World War.

ENGL 335 - English Romanticism (3)
English literature of the early 19th century, concentrating on six great Romantic poets: Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats.

ENGL 336 - Victorian Literature (3)
English literature from 1830 to 1900, emphasizing the poetry of Tennyson and Browning, and the novels of Dickens.

ENGL 355 - American Romanticism (3)
Literary romanticism in 19th century American prose and poetry. Includes Hawthorne, Melville, Thoreau, Whitman, and Dickinson.

ENGL 356 - American Realism (3)
Literary realism in American prose and poetry of the 19th and early 20th centuries. Includes James, Dreiser, Twain and others.

ENGL 365 - Modern Literature (Emphasis Drama) (3)
Origins and development of major concerns and themes in the early modern period. Emphasis on Western drama.

ENGL 366 - Modern Literature (Emphasis Poetry) (3)
Explorations of modern themes and techniques in the works of major modern writers, chiefly British and American.

ENGL 369 - Contemporary European Fiction (3)
Major European writers of the 20th century and their reflection of literary, political, social, philosophical and psychological developments.

ENGL 370 - Contemporary Poetry and Drama (3)
Contemporary poetry and drama, primarily British and American.

ENGL 373 - Contemporary British and American Fiction (3)
Fiction in Britain and America since the Second World War.

ENGL 375, 376 - Special Studies (3,3)
Studies in significant literary figures, movements, and topics. Consult *Schedule of Courses* for specific topic.

ENGL 411 - Studies in Drama (3)
Major problems, themes, movements, or figures in drama. Consult *Schedule of Courses* for specific topic.

ENGL 413 - Studies in Poetry (3)
Major problems, themes, movements, or figures in poetry. Consult *Schedule of Courses* for specific topic.

ENGL 415 - Studies in the Novel (3)
Major problems, themes, movements, or figures in the novel. Consult *Schedule of Courses* for specific topics.

ENGL 445 - Studies in English Literature to 1600 (3)
Significant figures, movements, themes, or problems in English literature to 1600. Consult *Schedule of Courses* for specific topic.

ENGL 447 - Studies in English Literature, 1600-1800 (3)
Significant figures, movements, themes, or problems in English literature, 1600-1800. Consult *Schedule of Courses* for specific topic.

ENGL 449 - Studies in English Literature, 1800-Present (3)
Significant figures, movements, themes, or problems in English literature, 1800 to the present. Consult *Schedule of Courses* for specific topic.

ENGL 455 - Studies in American Literature to 1900 (3)
Significant figures, movements, themes, or problems in American literature through the 19th century. Consult *Schedule of Courses* for specific topic.

ENGL 457 - Studies in American Literature, 1900-Present (3)
Significant figures, movements, themes, or problems in American literature of the 20th century. Consult *Schedule of Courses* for specific topic.

ENGL 465 - Major Seminar (3)
Literature as a discipline. Topics include literary history, textual criticism, contemporary prose styles, and use of linguistics and computer techniques.

ENGL 470 - Seminar in Creative Writing (3)
Prerequisite: English 302 and 303, or permission of instructor. Advanced workshop in creative writing.

ENGL 491, 492 - Individual Study (3, 3)
Individual study under the direction of a member of the staff. By permission of the Department.

ENGL 499 - Internship (1-6)
Supervised off-campus experience, developed in consultation with the Department. Up to three credits may be counted toward the English major.

Linguistics Course Offerings

LING 101 - Introduction to General Linguistics (3)
Introduction to the nature, structure, and function of language; biological origins and animal communication; psycholinguistics; language acquisition; and language variation.

LING 201 -Issues in Sociolinguistics and Anthropological Linguistics (3)
Prerequisite: Linguistics 101. The significance of language for social life; language and gender, language and ethnicity; national standards and language variation; language and culture.

LING 301 – Major Figures in Linguistics (3)
Prerequisite: LING 101. The history of linguistic thought with special emphasis on significant figures and key developments in twentieth century linguistics.

LING 305 - The English Language (3)
Prerequisite: Linguistics 101. The application of linguistic methods and theories to the analysis of English language and literature: grammars and grammatical theories; discourse analysis; history of English, language variation and change.

LING 491, 492 - Individual Study in Linguistics (3)
Individual study under the guidance of a member of the staff. By permission of the Department.

Speech Course Offerings

SPCH 205 - Public Speaking (3)
Study of the basic principles of public address in Western society. Emphasis is on developing a theoretical and practical understanding of oral communication through practice in preparing, delivering, and criticizing speeches in class.

SPCH 206 - Interpersonal and Small Group Communication (3)
Theory and practice of effective interpersonal and small group communication. The first half of the course focuses on analyzing, evaluating, and participating in interpersonal relations; the second half on group dynamics, problem-solving, and decision-making.

SPCH 207 - Literature in Performance (3)
A performance course designed to enhance the performer's appreciation and understanding of the great literature of the world–poetry, prose, and drama–by translating the printed page into the spoken word. Experience in presenting material to both adults and children.

SPCH 209 - Argumentation and Discussion (3)
Theory and practice in argumentation and discussion, designed to help students develop skills in persuasive speaking by helping them gather and evaluate evidence and use it in constructing oral arguments.

SPCH 310 - Intellectual Foundations of Communication (3)
Introduction to human communication studies, emphasizing the history and theory of ancient rhetoric to discover the significant questions raised by rhetoricians about society and how they can be applied to contemporary life.

SPCH 311 - Communication in a Free Society (3)
Study of recent developments in rhetoric and the persuasive strategies of groups and individuals that touch our daily lives. Includes study of persuasive methods used in mass movements, advertising, politics, and religion.

SPCH 370 - Topics in Speech Communication (3)
Studies in major figures, movements, and problems in speech communication theory and practice. Consult *Schedule of Courses* for specific topic.

SPCH 470 - Debate Practicum (1)
Credit for satisfactory work on the College debate team. Enrollment by permission of instructor and the Department. No more than 8 credits of Debate Practicum may count toward the 122 hours required for graduation.

SPCH 491, 492 - Individual Study (3, 3)
Individual study under the direction of a member of the staff. By permission of the Department.

SPCH 499 - Internship (1-6)
Supervised off-campus experience, developed in consultation with the Department. Credits variable.

Program in Environmental Science and Geology

Michael L. Bass, *Career Adviser - Environmental Science*
Grant R. Woodwell, *Career Adviser - Geology*

Professors
Michael L. Bass, Professor of Biology
Stephen W. Fuller, Professor of Biology
Roy F. Gratz, Professor of Chemistry

Associate Professors
Timothy Crippen, Associate Professor of Sociology
Robert L. McConnell, Associate Professor of Geology
Werner Wieland, Associate Professor of Biology

Assistant Professors
Anthony E. Jiminez, Assistant Professor of Economics
Raymond B. Scott, Assistant Professor of Chemistry
Grant R. Woodwell , Assistant Professor of Geology

For information about faculty backgrounds and interests, consult the entries in their respective departments.

The cross-disciplinary major in Environmental Science and Geology offers two concentrations. The **Environmental Science** concentration promotes the study of mankind's link to our environment; students may emphasize a natural science or a social science perspective. The natural science track provides a background in biology, chemistry, and geology. The analytical skills available in this program, coupled with an appreciation of socioeconomic considerations, will prepare the student to evaluate environmental problems and work on solutions taking into consideration the limits of societal resources. The social sciences track focuses on the economic, political and sociological impact of mankind on the environment. This study, coupled with an appreciation of the biotic and physical parameters of the environment, will prepare the student to evaluate government, industry, and environmentalist positions on environmental issues.

Environmental legislation and the Environmental Protection Agency regulations have produced an increased demand by both industry and all levels of government for people trained in the environmental sciences. Both tracks provide a strong background for advanced study or allow placement directly in a variety of career areas. Students who have the proper academic record may use Environmental Science 481 and Environmental Science 491 to pursue Honors in Environmental Science. Financial support for student research is available for majors.

Equipment for ecological studies in terrestrial, fresh water and marine environments includes live animal traps, plankton and insect nets,

seines, dissolved oxygen, conductivity and pH meters for field work, a small fleet of boats including one equipped for trawling and dredging, and fresh and salt water aquaria.

The **Geology** concentration offers introductory courses designed to present the basic principles and applications of the science, and upper-level courses that provide more thorough analysis of geological processes for students planning professional employment or graduate study in the field. The program also provides background for teaching the earth sciences. Around the geology concentration one can build a career-focused set of courses from other disciplines, e.g., with geography for urban and land-use planning or cartography; with biology for environmental studies; and with chemistry and physics for geochemical or geophysical research on energy and mineral resources. Students concentrating in geology are encouraged to do independent study and research during their senior year. If they have a 3.00 overall grade point average with a 3.25 average in geology courses, they may pursue honors in geology by completing an independent research project and writing and defending a thesis.

. For geological field work,the College has a proton magnetometer, a seismometer, surveying equipment, and altimeters, and, for classroom study, an extensive collection of rocks, minerals, and fossils.

Requirements for the Environmental Science Concentration

Students expecting to concentrate in Environmental Science should take the following courses as basic requirements or electives because they are prerequisite to courses in the major program: BIOL 121, 122, CHEM 111, 112; ECON 201, 202. GEOG 221, 222 and 202, and PSCI 101 and 102 are listed as prerequisites to some of the courses that a student might select in the major program.

Core Courses: EESC 101, 460; BIOL 311 or 322; CHEM 252 or 211; ECON 331; GEOG 375; GEOL 102, or 111, or 112; GEOG 275, or SOCG 314.

Required Groupings: 14-16 credits from courses in one of the following groupings to form an approved, cohesive program. (No more than three courses may be taken in any one discipline):

Natural Environmental Sciences: BIOL 231, 250, 311, 312, 321, 322, 323, 351, 363, 364, 371, 372, 422S; CHEM 211, 212, 252, 317, 318, 319, 320 351; GEOG 330, 340, 350, 351, 370; GEOL 102, 111, 112, 221, 301, 402;EESC 481, 491, 499.

Social Environmental Sciences: ANTH 102; BIOL 250; ECON 312, 332, 341, 354, 405; GEOG 230, 235, 275, 330, 340, 350, 351, 370, 430, 435; PSCI 332, 341, (PSCI 101, 102 are prerequisites); SOCG 313, 314; EESC 481, 491, 499.

Recommended: CPSC 101 or 102; GEOG 202; MATH 121, 200; PHYS 101, 102, or 105, 106; Courses in Basic Requirements or Required Groupings as above.

Requirements for the Geology Concentration

In Major Subject: Twenty (20) credits in the following geology courses: *GEOL 111, 112, 301, 302, and 412.*

Additional Major Requirements: Sixteen (16) credits in other geology courses at the 200 level or above. With adviser approval, either GEOG 340 or 350 and CHEM 330 may be substituted for up to eight (8) of these credits.

Note: CHEM 112 is prerequisite to GEOL 301 and should be taken no later than the sophomore year.

Environmental Science Course Offerings

EESC 101 - Introduction to Environmental Science (1)
Mankind and the environment as viewed from the social and natural sciences.

EESC 460 - Environmental Science Seminar (2)
Multidisciplinary evaluation of environmental problems. Senior level seminar for Environmental Science majors; others by permission of the instructor.

EESC 481 - Readings in Environmental Science (1-2)
Readings in Environmental Science literature selected by the student, who is guided by a staff member. Open to junior and senior majors by permission of the Department.

EESC 491 - Special Problems in Environmental Science (1-3)
Prerequisite: Environmental Science 481. Individual Laboratory or Field investigation supervised by a staff member. Open to junior and senior majors with permission of the Department.

EESC 499 - Internship
Prerequisite: Junior or senior major in good academic standing with appropriate background. Supervised off-campus experience, developed in consultation with the Department. Credits variable.

Geology Course Offerings

GEOL 102 - Oceanography (3)
Study of the oceans, ocean floor, sediments, continental drift, plate tectonics, physical oceanography, and marine resources. Does not satisfy any major program requirements nor serve as prerequisite to any other geology courses.

GEOL 111 - Introductory Geology (4)
Introduction to the earth: rocks and minerals, mountain-building, structure of the earth's interior, and surface processes. Laboratory. Entry level course.

GEOL 112 - Earth History (4)
Prerequisite: GEOL 111. History of the earth with emphasis on plate tectonics, evolution of continents and ocean basins, and evolution of life as deduced from the fossil record. Laboratory.

GEOL 201 - Paleontology (4)
Prerequisites: GEOL 111 and BIOL 121. Plant and animal fossils and the ancient environment indicated by their presence. Laboratory.

GEOL 221 - Environmental Geology (3)
Prerequisite: GEOL 111; recommended: GEOL 112. Interaction of geologic processes with society; geology, recovery, and use of fossil fuels and mineral deposits; groundwater: sources, uses, and degradation; energy sources.

GEOL 301 - Mineralogy (4)
Prerequisites: GEOL 111 and CHEM 112. Study of minerals including an introduction to crystallography and methods of identification. Laboratory.

GEOL 302 - Petrology (4)
Prerequisite: GEOL 301. Origin and evolution of magmas; origin, nature and classification of igneous and metamorphic rocks; introduction to sedimentary rocks; laboratory emphasis on identification of hand specimens. Laboratory.

GEOL 311 - Sedimentation and Stratigraphy (4)
Prerequisite: GEOL 111; recommended: GEOL 301. Sedimentary particles, transport processes, depositional environments, and strata. Laboratory.

GEOL 331 - Optical Mineralogy and Petrography (4)
Prerequisite: GEOL 301. Laboratory course in optical theory and use of the polarizing petrographic microscope for the examination of rocks and minerals in thin section. Laboratory.

GEOL 333 - Plate Tectonics (3)
Prerequisite: GEOL 112. A detailed analysis of the evidence which led to the development of the theory of plate tectonics. Related selected topics include seismology, heat flow, geomagnetism, and geochemistry.

GEOL 402 - Geochemistry (3)
Prerequisite: GEOL 301 or permission of the instructor. Study of the distribution, migration, and abundance of the elements within the earth.

GEOL 412 - Structural Geology (4)
Prerequisite or corequisite: GEOL 302. Analysis and interpretation of structural features of the earth's crust such as folds and faults. Laboratory.

GEOL 421 - Advanced Topics in Geology (2-4)
Prerequisite: permission of the instructor. Specialized topics not offered on a regular basis such as Vertebrate Paleontology or Hydrology. Laboratory included with certain topics.

GEOL 491 - Individual Study (1-4)
Prerequisite: permission of the instructor. Investigation of a topic which may include laboratory and literature research. Course of study determined by instructor and student.

GEOL 499 - Internship (Credits variable)
Supervised off-campus experience developed in consultation with the Department. A maximum of three (3) credits may count toward the major program requirements.

FRENCH

See Department of Modern Foreign Languages

Department of Geography

James B. Gouger, *Chair*
Richard P. Palmieri, *Career Adviser*

Distinguished Professors
Marshall E. Bowen (B.Ed., Plymouth Teachers College; M.A., Kent State University; Ph.D., Boston University; 1987 Simpson Award for Excellence in Teaching)
Samuel T. Emory, Jr. (A.B., M.A., University of North Carolina; Ph.D., University of Maryland)

Associate Professors
James B. Gouger (B.A., Montclair State College; M.A., Ph.D., University of Florida)
Richard P. Palmieri (B.S., Boston State College; M.A., University of Texas; Ph.D., University of California)

Assistant Professor
John E. Damron (B.S., Wayne State University; M.A.T., Western Oregon College; M.A., Ph.D., University of Oregon)

Faculty Interests

Marshall Bowen, winner of the 1987 Simpson Award for Excellence in Undergraduate Teaching, is a widely-published authority on pioneer settlement in arid regions of the western United States. He teaches courses in historical geography and the geography of AngloAmerica. John Damron has research experience in environmental studies and estuarine environments in the Pacific Northwest, including management of a major inter-disciplinary program examining the Columbia River estuary. He teaches physical geography, human environment, geomorphology, and weather and climate. Samuel Emory, the most widely travelled member of the department, teaches political geography as well as a number of courses on the geography of foreign regions. Each summer he leads his Geographic Study Abroad class to Europe for four weeks of travel and study. James Gouger has extensive experience as a cartographer and has done field research in Middle America and the Caribbean. He teaches cartography, air photo interpretation and remote sensing, and regional courses on the geography of Latin America. Richard Palmieri teaches courses in cultural geography, urban geography, and the geography of Asia. His principal research interests are biogeography and cultural ecology, and he has conducted extensive field research in the Nepal Himalaya under the sponsorship of the National Geographic Society.

Geography, the study of place, is concerned with identifying and explaining the distribution and interrelationships of physical and cultural phenomena. Patterns of spatial arrangement are analyzed according to the attributes of location, extent, density, and succession. Because of its

breadth, examining mankind, his works, and his environment, the discipline of geography bridges the physical and social sciences. Thus, the study of geography embraces both the spirit and the purpose of a liberal education.

The geography program at Mary Washington College stresses a traditional approach to the discipline, introducing students to analytic techniques applicable to a wide range of spatially-related questions. The geography major prepares students for abundant career opportunities in government and private industry, as well as for graduate studies in geography, planning, and a variety of other disciplines. Recent graduates have begun careers as cartographers, urban and regional planners, map curators, intelligence officers, geographic editors, industrial location and transportation analysts, and resource and land managers.

The Excellent facilities for geographic studies at Mary Washington include outstanding map and aerial photograph collections and a well-equipped cartography laboratory. The department hosts a chapter of Gamma Theta Upsilon, the International Honorary Geography Society, and is an institutional member of the Association of American Geographers.

Requirements for the Major

36 credits in geography, including 201, 202, 221, and 222. The major program shall include at least two courses in each of four groupings: physical, regional, systematic, and professional. GEOG 499 (Internship) does not count toward the minimum requirements for the major.

Course Offerings

GEOG 101 - World Regional Geography (3)
An appreciation of geographic patterns in the distribution of physical and cultural phenomena in the major regions of the world.

GEOG 201 - Introduction to Cultural Geography (3)
Concepts, themes, and methods of cultural geography presented within an evolutionary framework which stresses German, French, English, Russian, and American schools of geographic thought.

GEOG 202 - Introduction to Physical Geography (3)
An introduction to the interrelated elements of the natural world, including weather and climate, vegetation, soils, water, and landforms.

GEOG 221 - Geography of Eastern Anglo-America (3)
Regional geography of the eastern United States and Canada, stressing differences in the land, landscape, life, and livelihood.

GEOG 222 - Geography of Western Anglo-America (3)
Regional geography of the western United States and Canada, stressing differences in the land, landscape, life, and livelihood.

GEOG 230 - Introduction to Economic Geography (3)
Distribution, description, and analysis of traditional economic systems, their spatial and environmental frameworks, and their roles in the modern world.

GEOG 235 - Introduction to Urban Geography (3)
Origin and diffusion of pre-industrial cities, their environmental settings, urban ecology, functions, and morphology in both Old and New Worlds.

GEOG 275 - Human Environment: Perception and Utilization (3)
An introduction to population problems, environmental quality, pollution, resource utilization, conservation, and human impact on the natural world.

GEOG 301 - Geography of Middle America and the Caribbean (3)
Regional geography of the lands and peoples of Middle America and the Caribbean, with particular emphasis on the historical development of distinct geographic regions.

GEOG 302 - Geography of South America (3)
Regional geography of the lands and peoples of South America, with particular emphasis on historical geography and the historical development of distinct geographic regions.

GEOG 303 - Geography of Europe (3)
A survey of the climate, surface features, natural resources, population, agriculture, industry, and trade of the European continent.

GEOG 304 - Geography of the Middle East and North Africa (3)
A study of the arid-land countries of the Middle East and North Africa, focusing on landscape, economy, life, and livelihood.

GEOG 305 - Geography of Sub-Saharan Africa (3)
A study of Africa south of the Sahara, focusing on landscape, economy, life, and livelihood.

GEOG 306 - Geography of South and Southeast Asia (3)
Environment, landscape, and livelihood of the Indian subcontinent and mainland and insular Southeast Asia, with special reference to tropical and subtropical monsoon regions.

GEOG 307 - Geography of East and Central Asia (3)
A survey of the environment, landscape, and livelihood of China, Mongolia, the Korean Peninsula, Japan, and the Treaty Ports.

GEOG 308 - Geography of the Soviet Union (3)
A study of landforms, climate, boundaries, trade, resources, peoples, and cultural groupings of the Soviet Union.

GEOG 320 - Geographical Influences on History (3)
An appreciation of the influence of man's physical environment on history, with emphasis on American history.

GEOG 321 - Political Geography (3)
A study of geographic factors in world power and international affairs, with emphasis on territorial definition, boundaries, and current problem areas.

GEOG 330 - Introduction to Planning (3)
A survey of basic concepts, laws, and methods used in city and regional planning, illustrated with case studies.

GEOG 340 - Interpretation of Maps and Aerial Photographs (4)
Prerequisites: GEOG 221 and 222. Geographic interpretation of large-scale maps and aerial photographs, with emphasis on their use as research tools in geography.

GEOG 341 - Remote Sensing (3)
Prerequisite: GEOG 340. Geographic interpretation, analysis, and applications of imagery obtained from sensors operating beyond the spectral band of visible light.

GEOG 350 - Cartography I (4)
Prerequisite: GEOG 340 (may be taken concurrently). Introduction to basic cartographic methods and analysis of cartographic problems, with emphasis on exercises in graphic presentation.

GEOG 351 - Cartography II (4)
Prerequisite: GEOG 350. Advanced techniques of cartographic design and production; emphasis on thematic mapping and utilization of stable-base media.

GEOG 360 - Geographic Study Abroad (variable 1-6)
A course conducted in a selected area abroad, combining lectures, observation, and travel.

GEOG 370 - Geomorphology (3)
Prerequisite: GEOG 202 and 340 or permission of instructor. Origin and development of landforms and their relation to underlying structure, process, and time.

GEOG 375 - Weather and Climate (3)
Prerequisite: GEOG 202 or permission of instructor. Analysis of weather processes, distribution of climate regions, human modification of climate, and the impact of climate upon man and nature.

GEOG 410 - Selected Topics in Geography (variable 1-3)
Lecture or seminar class dealing with a preselected topic of current interest. (May be repeated for credit with change of topic.)

GEOG 422 - Historical Geography of North America (3)
Prerequisite: GEOG 221 and 222. Analysis of past geographic patterns in selected regions of the United States and Canada, with emphasis on development of research skills and scholarly writing.

GEOG 430 - Advanced Economic Geography (3)
Theoretical approaches to the location of economic activities, spatial models of economic systems, and regional economic organization.

GEOG 435 - Advanced Urban Geography (3)
A consideration of post-industrial cities; an intensive view of their urban structure, internal and external spatial relationships, and city systems.

GEOG 460 - Field Methods in Geography (3)
Methods of obtaining information, mapping, and preparing reports based on field research experience.

GEOG 461 - Geographical Fieldwork (3)
Intensive study of a problem in physical, economic, or cultural geography, conducted in an area of geographic interest.

GEOG 465 - Computer Applications in Geography (3)
Prerequisite: Twenty-four credits in geography or permission of instructor. Use of the computer as a tool in developing, analyzing, and reporting research problems in physical and human geography.

GEOG 480 - History of Geographic Thought (3)
Prerequisite: Twenty-four credits in geography or permission of instructor. Sem-

inar on the development of geographic knowledge, theory, philosophy, and methods, as illustrated by the writings of representative geographers.

GEOG 485 - Readings in Geography (variable 1-3)
Prerequisite: Permission of the instructor. Directed readings on a selected topic in geography under the guidance of a member of the geography faculty.

GEOG 491 - Individual Study in Geography (variable 1-6)
Prerequisite: Permission of the instructor. Intensive individual study of some geographic problem.

GEOG 492 - Individual Study in Cartography (variable 1-6)
Prerequisite: GEOG 351 and permission of the instructor. Intensive individual study of some cartographic problem.

GEOG 499 - Internship (variable 1-6)
Prerequisite: Permission of the instructor. Supervised off-campus experience. Cannot be counted toward the minimum requirements for a geography major.

GEOLOGY

See Program in Environmental Science and Geology

GERMAN

See Department of Modern Foreign Languages

GREEK

See Department of Classics, Philosophy, and Religion

Department of Health and Physical Education

Edward H. Hegmann, *Chair and Career Adviser*

Professor
Edward H. Hegmann, Director of Athletics (B.S., Bucknell University; M.S., Springfield College; Ed.D., Temple University)

Associate Professors
Thomas J. Davies (B.A., M.A., Brigham Young University)
Constance A. Gallahan (B.S., Longwood College; M.S., University of Tennessee)
Roy M. Gordon, Associate Director of Athletics (B.A., Harpur College of the State University of New York; M.S., Springfield College)

Assistant Professors
Paul L. Richards, Jr., Acquatics Director (B.S., Bloomsburg State College; M.S., Indiana University of Pennsylvania)
David S. Soper (B.S., M.Ed., Frostburg State College)

Instructors
Deborah A. Conway (A.A., Ferrum College; B.A., M.Ed., Lynchburg College)
Kurt Glaeser (B. A., Western Maryland College; M. A., Montclair State College)
Elizabeth R. Hollibaugh (B.S., Slippery Rock State College; M.S., Northern Illinois University)
Thomas F. Sheridan (B.S., Lock Haven State University; M.S.Ed., Athletic Administration Certification, James Madison University)

Senior Lecturers
Robert E. Liebau, Athletic Trainer (B.S., M.S.Ed., Virginia Polytechnic Institute and State University; M.S.Ed., Old Dominion University)
Julia A. Smith, Director of Campus Recreation (B.S., University of Maryland; M.S., Eastern Illinois University)

Areas of Interest

Deborah Conway: women's softball, women's volleyball
Tom Davies: men's basketball
Connie Gallahan: women's basketball
Kurt Glaeser: men's lacrosse, women's soccer
Roy Gordon: men's soccer, men's tennis
Ed Hegmann: women's tennis
Beth Hollibaugh: women's field hockey, women's lacrosse
Bob Libau: athletic trainer
Paul Richards: men's and women's swimming and diving; men's and women's water polo
Tom Sheridan: men's baseball
Julie Smith: Director of Campus Recreation
Stan Soper: men's and women's cross country; men's and women's track

Participation in physical activities, including physical education classes, recreational programs, and intercollegiate athletics, is an essential part of the educational experience at Mary Washington.

The center for all indoor health, physical education, and recreation is Goolrick Hall. A modern 74,000 square-foot building, it has courts for basketball, badminton, volleyball, handball/racquetball, two dance studios, a 6-lane, 25-yard swimming pool with 1- and 3-meter diving boards, a weight training room, six large classrooms, and an auxiliary gym for individual exercise and recreation. The outdoor facilities include fields for baseball, soccer, lacrosse, field hockey, flag football, softball, and rugby, running trails, an 8-lane, 400-meter Rubaturf track, and 14 tennis courts (including a new 10-court lighted complex).

Physical education courses include history, rules and basic techniques in individual and team sports. Riding courses are available for credit but require a special fee. Health 100 provides up-to-date information about modern health problems confronting people of all ages. Discussion is encouraged to give students the opportunity to share personal experiences, resource materials, and problem-solving techniques. The impact of personal and environmental health problems on our society is also covered.

All Physical Education courses (except PHYD 150, 315, and 318) may be repeated for additional credit, but no more than eight credits may be counted toward the 122 credits required for graduation. If two sections of the same course are taken in one semester, only one will count toward degree requirements.

Health Education Course Offerings

HEED 100 - Contemporary Health Problems (3)

Physical Education Course Offerings

PHYD 101, 301 - Field Hockey (1, 1)

PHYD 103, 303 - Basketball (1, 1)

PHYD 105, 305 - Volleyball (1, 1)

PHYD 109, 309 - Lacrosse (1, 1)

PHYD 113, 313 - Individual Exercise (1, 1)

PHYD 113A, 313A - Individual Exercise - Weight Training (1, 1)

PHYD 113B, 313B - Individual Exercise - Aerobics (1, 1)

PHYD 116, 316 - Swimming (1, 1)

PHYD 119, 319 - Flag Football (1, 1)

PHYD 123, 323 - Soccer (1, 1)

PHYD 124, 324 - Softball (1, 1)

PHYD 133, 333 - Tennis (1, 1)

PHYD 145, 345 - Badminton (1, 1)

PHYD 147 - Elementary Position and Control in Riding (1)
Designed for those who have never ridden hunt seat. General handling of the horse, basic terminology; riding at the walk, trot and canter, using elementary aids.

PHYD 147A - High Elementary Position and Control in Riding (1)
Designed for those who have limited experience in riding or those who have taken 147. Review of 147; introduction of soft contact and jumping over low fences on loose reins.

PHYD 150 - First Aid (1)
May not be repeated for additional credit.

PHYD 247 - Low Intermediate Position and Control in Riding (1)
The beginning of soft, precise controls; coordination of the rider's aids with the horse's efforts. Continuation of jumping fundamentals and crest release; work over simple courses.

PHYD 247A - High Intermediate Position and Control in Riding (1)
Prerequisite: One semester of riding at Mary Washington or by permission of the instructor. Further development of contact. All movements recognized in the forward school of riding to be developed. Riding cross country and over more difficult courses.

PHYD 315 - Advanced Life Saving (1)
May not be repeated for additional credit.

PHYD 318 - Water Safety Instruction (1)
May not be repeated for additional credit.

PHYD 347 - Advanced Equitation, Schooling and Competition (1)
Prerequisite: One year of riding at Mary Washington or demonstration of thorough understanding of the forward school of riding. Preparation of student horses for competition; schooling of green horses, reschooling of problem horses; preparation of IHSA open riders for competitions.

PHYD 401 - Intercollegiate Women's Field Hockey (1)

PHYD 402 - Intercollegiate Baseball (1)

PHYD 403 - Intercollegiate Basketball (1)

PHYD 405 - Intercollegiate Women's Volleyball (1)

PHYD 409 - Intercollegiate Lacrosse (1)

PHYD 416 - Intercollegiate Swimming (1)

PHYD 423 - Intercollegiate Soccer (1)

PHYD 424 - Intercollegiate Softball (1)

PHYD 433 - Intercollegiate Tennis (1)

PHYD 434 - Intercollegiate Cross Country (1)

PHYD 447 - Intercollegiate Riding (1)

PHYD 461 - Intercollegiate Water Polo (1)

PHYD 481 - Intercollegiate Track (1)

Department of Historic Preservation

Carter L. Hudgins, *Chair*
W. Brown Morton, III, *Career Adviser*

Prince B. Woodard Chair of Historic Preservation
Assistant Professor Carter L. Hudgins (B.A., University of Richmond; M.A., Wake Forest University; Ph.D., College of William and Mary)

Assistant Professors
W. Brown Morton, III (B.A.H., University of Virginia; Diplome, Ministere des Affairs Culturelles Service des Monuments Historiques, Paris France)
John N. Pearce (A.B., Yale University; M.A., University of Delaware).
Gary W. Stanton (B. A., University of California at Santa Barbara; M. A., Ph.D., Indiana University)
Ann Camille Wells (B.A., Wake Forest University; M.A.H., University of Virginia. Senior Fellow, Commonwealth Center for American History and Culture, College of William and Mary).

Mary Washington College is distinguished as one of the first academic institutions in America to establish an undergraduate curriculum in historic preservation and the first to establish an independent Department of Historic Preservation. Now the largest of its type in the nation, this Department,offers an interdisciplinary major in Historic Preservation which acquaints students with the broad range of activities, methods, and theoretical perspectives encompassed by historic preservation. Students in this program may emphasize archives, architecture, architectural conservation, historical archaeology, material culture, and history museums in their course work.

Historic preservation is concerned with the conservation of historic sites and structures, and it is an area of study which provides opportunities for students to arrive at a deeper and richer understanding, not only of themselves, but of the ramifications of technological innovations and social change.

Majors in Historic Preservation explore the theoretical, philosophical, and ethical issues which surround preservation activities. Historic Preservation students also acquire intellectual and professional skills in preservation courses, in related academic disciplines, and in intensive, hands-on involvement in preservation activities in and near Fredericksburg. Recently, for example, students completed an architectural survey of Port Royal, participated in architectural surveys of neighborhoods in Fredericksburg, excavated the site of Prince William County's eighteenth-century courthouse, and made recommendations for the preservation of the late eighteenth-century Barnes House in Falmouth.

The Historic Preservation program is significantly enhanced by the location of the College in Fredericksburg, a city exceptionally rich in history from the eighteenth to the twentieth centuries. The city and its historical resources, especially the architecture of the first half of the

nineteenth century and the area's important industrial and milling sites, provide unsurpassed opportunities for fieldwork and research. Among many on-going projects, the Department is conducting an intensive historical and architectural study of Fredericksburg and its environs. Students involved in this and other projects have published the results of their research in a Department journal, Sites and structures, and in which are reports prepared by the Department and distributed throughout the Commonwealth. Exhibits prepared by preservation students have traveled throughout the state and are also displayed in Monroe Hall and Brompton, the residence of the President of the College.

The academic major in Historic Preservation is also enhanced by the programs of the Center for Historic Preservation. The Center, which shares offices with the Department, sponsors lectures, workshops, seminars, and conferences that feature nationally-acclaimed authorities who represent a broad range of professional interests and activities. The Center also hosts the semi-annual meetings of the Jamestown Conference on Archaeology and an annual preservation conference.

The Department of Historic Preservation and the Center for Historic Preservation share a well-equipped archaeological laboratory in Goolrick Hall and jointly carry out study programs and research. For more than five years, the Department and the Center have supported a major archaeological excavation at Germanna, the site of eighteenth-century governor Alexander Spotswood's frontier plantation.

Special financial assistance is available for historic preservation students through several
scholarships, including the Albert J. Bowley Scholarship, affiliated with the James Monroe Museum; the Annie Fleming Smith Scholarship, affiliated with Kenmore, the eighteenth century residence of Colonel Fielding Lewis and his wife Betty Washington Lewis; and the Catherine Skinner Leu Scholarship. In addition, historic preservation students are eligible for J. Binford Walford Scholarships, awarded to students who plan to pursue careers in architecture.

The Department of Historic Preservation, a member of the National Council for Preservation Education, exceeds the criteria established by that group for a major in historic preservation.

Faculty Interests

Historic Preservation is the study of the physical remains of the past and the development of plans for their use in the present and future. Historic preservation is also the effort to understand the relationships between historical events, the ideas which inspired them, and the buildings and objects which shaped and were shaped by both. The historic preservation faculty at Mary Washington are actively engaged in many aspects of this process. Trained as an historian and an archeologist, Carter L. Hudgins has excavated sites in Virginia, North Carolina, and Georgia and has written about the social and cultural history of Virginia in the eighteenth century and about blue collar workers in early twentieth-century Birmingham, Alabama. W. Brown Morton III came to Mary Washington after a distinguished career as an architectural; conservator that took him to major projects at the imperial Vietnamese capital city of

Hue and the Buddhist temple of Borobadur on the island of Java in Indonesia. Morton continues to be involved in that project and many others, including the preservation of the St. Louis Cathedral in America. John N. Pearce is widely known as an expert in the administration and interpretation of historic sites and museums, and the American decorative arts. Gary W. Stanton has called the scrubby pastures of Nevada ranches and the sea islands of South Carolina home and has written about the folklife of both areas. Camille Wells lectures at Mary Washington under the auspices of the College of William and Mary's Commonwealth Center for the Study of American History and Culture. A doctoral candidate in history at the College of William and Mary, she is past president of the Vernacular Architecture Forum and highly regard for her research in material culture and vernacular architecture.

Careers in Historic Preservation

Students in historic preservation are well prepared in the identification, recovery, interpretation, conservation, and restoration of historic structures and sites. This is good preparation for careers in museums, archives, architectural history, archaeology, and other aspects of historic preservation, it is also appropriate for many careers in government, banking, finance, real estate, and law.

Requirements for the Major

In Major Subject: 33 credits required in HISP 201, 202, 301, 305, 307, 321, 322, 405; and one of the following, 461, 462, or 463; plus 6 hours at the upper level selected from among HISP 303, 310, 407, 460, 465, 466S, 471, 491.

In other subjects: ARTH 114, 115; HIST131, 132; and GEOG 221, 222, or 422.

Course Offerings

HISP 201 - The American Heritage (3)
Survey of America's architectural, cultural, historical and natural resources and the historic, social, economic, political, and environmental forces which have shaped them.

HISP 202 - Preserving Historic America (3)
Survey of the history of historic preservation and the practice of preservation with emphasis on the method and theory of recording and interpreting historic sites and structures. Should be taken in sequence.

HISP 301 - The History Museum (3)
Survey of the history, philosophy, and management of history museums, including exhibit design, curatorship and public interpretation.

HISP 303 - Archives and Society
Examination of the theory and practice of archival work, including the preservation and cataloging of manuscript collections and other archives.

HISP 305 - American Building (3)
Intensive overview of the evolution of American building from early dwellings and towns to the glass and steel towers that dominate post-modern skylines.

Special emphasis is given to buildings technologies and to the techniques of conserving historic structures.

HISP 307 - American Archaeology (3)
The archaeology of North America since the arrival of European and African colonists. Special emphasis placed on the methods of historical archaeology and archaeology as a perspective for writing American history.

HISP 310 - The Decorative Arts (3)
Survey of the styles and uses of furniture and other decorative arts in America from the 17th century to the present, with emphasis on research of a selected group of objects.

HISP 321 - American Forms and Values to 1840 (3)
Interpretation and analysis of artifacts in the pre-industrial American landscape and the historical texts which illuminate them.

HISP 322 - American Forms and Values in the Modern Era (3)
Examination of the effect of industrialization and modernization on American material culture. Should be taken in sequence.

HISP 405 - Survey and Planning (3)
Prerequisite: Historic Preservation 201, 202, 305. An intensive survey and research-based study of preservation planning, with emphasis on the identification and analysis of sites and structures in their geographical, historical, and socio-economic contexts.

HISP 407 - Documentation and Fieldwork (3)
Prerequisite: Historic Preservation 201, 202, 305. Documentation and analysis of historic structures through measured drawings and photographs.

HISP 460 - Architectural Conservation (3)
Prerequisite: Historic Preservation 201, 202, 305. The investigation and evaluation of the physical condition of historic buildings and their materials. The causes and effects of the mechanisms of deterioration will be emphasized in this fieldwork-oriented class.

HISP 461 - Laboratory in Architectural Conservation (3)
Prerequisite: Historic Preservation 460. Scientific techniques in architectural conservation including monitoring of building materials and their environment, advanced methods of intervention, and analysis of historic paint colors.

HISP 462 - Laboratory Methods in Historical Archaeology (3)
Prerequisite: Historic Preservation 307. Laboratory procedures for the processing, identification, analysis and conservation of artifacts.

HISP 463 - Laboratory in Museum Design and Interpretation (3)
Prerequisite: Historic Preservation 301. Design and fabrication of museum exhibits and other methods of historic site interpretation.

HISP 465 - Field Methods in Historic Archaeology (3)
Prerequisite: Historic Preservation 307 or permission of the instructor. Fieldwork-intensive introduction to the field techniques of recording, documenting, and excavating archaeological sites.

HISP 466S - Practicum in Historic Preservation (3)
Hands-on preservation work under the direction of master craftsmen and permanent faculty.

HISP 471 - Special Studies in Historic Preservation (3)
Prerequisite: Historic Preservation 202 or permission of the instructor. Seminar on a topic in historic preservation.

HISP 491 - Individual Study in Historic Preservation (3)
Prerequisite: Historic Preservation 201 and 202 and permission of the instructor. Intensive individual investigation of a significant research problem under the direction of a faculty member.

HISP 499 - Internship in Historic Preservation (credits variable)
Prerequisite: Historic Preservation 201, 202, additional course work in Historic Preservation appropriate for the internship, and permission of the instructor. Field experience with a preservation-related institution or group outside the College.

Department of History and American Studies

Richard H. Warner, *Chair*
Claudine L. Ferrell, *Career Adviser for History*
Arthur L. Tracy, *Director and Career Adviser for American Studies*

Rector and Visitors Chair
Professor William B. Crawley, Jr. (B.A., Hampden-Sydney College; M.A., Ph.D., University of Virginia)

Distinguished Visiting Professor
James Farmer (B.S., Wiley; B.D., Howard University)

Professors
Roger J. Bourdon (B.S., Loyola University of Los Angeles; M.A., Ph.D., University of California at Los Angeles; 1989 Simpson Award for Excellence in Teaching)
Benjamin F. Zimdars (B.A., North Central College; M.A., University of Wisconsin; Ph.D., University of Texas)

Associate Professors
Porter R. Blakemore (B.A., University of North Carolina; M.A., Madison College; Ph.D., University of Georgia)
Otho C. Campbell (B.A., University of Richmond; M.A., The American University; Ph.D., University of Virginia)
Key S. Ryang (B.A., Trinity University; M.A., Ph.D., Columbia University)
Arthur L. Tracy (B.A., Barrington College; M.A., Ph.D., The American University
Richard H. Warner (A.B., Dartmouth College; M.A., Ph.D., New York University)

Assistant Professors
Claudine Ferrell (B.A., M.A., Southwest Texas State University; Ph.D., Rice University)
John H. Hughes (B.A., University of British Columbia; M.A., Ph.D., University of Sussex)

The Department of History and American Studies offers two related major programs: the history major focuses primarily on American, European, Latin American, and Far Eastern History; the American Studies major focuses on American culture and is interdisciplinary.

The goal of the History program is to produce graduates able to understand and solve historical problems and capable of independent, critical judgment based on historical knowledge. Graduates might go on to any number of careers, but these qualities of mind are invaluable in all cases. Because the discipline requires the ability to analyze and communicate ideas as well as to retain factual information, it is an ideal preparation for law school, for a career in library or archival work, for journalism or media research, or for a business career.

The History curriculum itself, which is widely diversified, has several distinctive features, including a series of introductory courses in West-

ern Civilization and American History. These courses are also appropriate electives for non-majors and may be especially useful for students planning to major in related fields.

The History program offers some twenty-five 400-level seminars which examine a variety of topics, ranging from American Utopian Communities to Nazi Germany. These seminars provide opportunity for extensive student participation in the exchange of ideas. An internship option enhances the program by granting credit for history-related, career-oriented work outside the classroom.

The Honors award in history requires good academic standing and superior work in HIST 495, Historical Research. Final approval for Honors is determined by a departmental Honors Committee.

Two student organizations within the Department offer opportunities to participate in social and educational activities: Phi Alpha Theta, the National History Honorary Society, and the History Club. Both of these student organizations enrich the quality of the History program.

The interdisciplinary American Studies program is designed to provide students with a flexible, multi-faceted approach to the study of American society. Since the major provides much latitude in selection of courses, students are encouraged to work closely with the Career Adviser in choosing courses which will form a cohesive program.

The American Studies seminars, ordinarily taken in the junior and senior years, help students
integrate courses in the various areas into a meaningful understanding of American culture. The seminars range broadly across American culture, with the aim of identifying and analyzing major characteristics of colonial and modern technological society, clarifying their values and assumptions, and relating the present to the past and future. The seminar method of instruction is central to the program, and offers each student ample opportunity to participate fully in discussion and analysis.

The American Studies major provides excellent preparation for students interested in law, journalism and communications, library science, museum work, teaching, and many areas of public service.

Requirements for the History Major

HIST 299 and 30 credits in History courses numbered 300 and above; at least nine credits must be at the 400 level, including 471 and 495 but excluding 499. Although students may elect to focus on American, European, or Asian history, at least nine credits must be outside the focal area.

Requirements for the American Studies Major

In the Major Subject: AMST 310, 311, 312, 313, and 450.

Additional major requirements: HIST 131, 132, and 15 credits from selected courses in Art History, Historic Preservation, Political Science, Religion, English, Sociology, Philosophy, Anthropology and History; no more than 6 credits in any discipline, courses to be selected in consultation with the Director.

History Course Offerings

HIST 121 - Western Civilization I (3)
From ancient Near Eastern origins through classical Greece and Rome and the Middle Ages to the Renaissance and Reformation Era.

HIST 122 - Western Civilization II (3)
From the seventeenth century, the Age of Absolution and Enlightenment, through the French Revolution to the era of nationalism and industrialism and modernism of the twentieth century.

HIST 131 - American History to 1865 (3)
The Age of Discovery and the Colonial Era through the American Revolution, nation building, the rise of the party system, slavery, and the Civil War.

HIST 132 - American History Since 1865 (3)
Reconstruction, the emergence of industrialism and the development of world power status, the World Wars and post1945 trends.

HIST 141 - Asian Civilization I (3)
Asian civilization from its origins in India, China, Japan and other societies through 1500 AD. Emphasis is on social, intellectual, and technological change in the development of the culture and history of the area.

HIST 142 - Asian Civilization II (3)
Asia in the modern era, 1500 AD to present, the age of Western expansion and penetration and the social, political, economic and intellectual transformation of the nineteenth and twentieth centuries.

HIST 200 - Topics in History (3)
Topics, listed in the *Schedule of Courses*, chosen according to timely interest.

HIST 299 - Seminar: Introduction to the Study of History (3)
A writing and discussion-intensive study of what history is and what a historian does, focusing on historiography, techniques of research, and writing history.

HIST 301, 302 - Diplomatic History of the United States (3, 3)
First semester, analysis of American foreign relations from colonial period to 1860; second semester, 1860 to present.

HIST 303 - The American South (3)
Slavery and the plantation system, rise of sectionalism, Civil War and Reconstruction, the era of segregation and the civil rights movement.

HIST 304 - The Civil War (3)
Development of Southern nationalism and the Confederacy, emphasis on social, economic and political, as well as military aspects of the War.

HIST 305 - The Frontier in American History (3)
Western movement across the continent from colonial beginnings to the present; impact of frontier experience on American attitudes and values.

HIST 306 - The Black in American History (3)
Development of racism, the slavery experience, the segregation era, the civil rights movement and the rise of black militancy.

HIST 309 - The American Indian (3)
From pre-history to the present, with emphasis on differences among Indians

and on interaction between Indians and whites.

HIST 311, 312 - History of Virginia (3, 3)
First semester, English origins and colonial developments through the revolutionary era; second semester, Jeffersonian period to the present.

HIST 331 - Ancient Greece (3)
Geography, history and civilization of Greece from the earliest times through the death of Alexander the Great.

HIST 332 - Ancient Rome (3)
Formation, development and demise of the Republic; Augustus and the Empire; and the impact of Christianity.

HIST 333 – The Renaissance and Reformation (3)
Growth of Italian city-states, the new philosophy of man, Christian humanism, and the spread of Protestantism.

HIST 351, 352 - History of England (3, 3)
Survey of English history from beginning to present with emphasis on economic and political aspects and growth of British empire.

HIST 353, 354 - History of France (3, 3)
First semester, Gaul and the Franks to French Revolution and Napoleon; second semester, Restoration Era to deGaulle.

HIST 356 - History of Germany (3)
From the wars of unification to the present, with emphasis on the era of Bismarck, World War I, Weimar Republic, Third Reich and Cold War.

HIST 357, 358 - History of Russia (3, 3)
First semester, Kiev, Muscovy and Imperial Russia to 1856; second semester, the last Romanovs, Revolution and Soviet Period.

HIST 359, 360 - History of Spain (3, 3)
From Moorish invasions to the present, with emphasis on social and economic developments from the 16th century to the modern age.

HIST 361, 362 - History of Latin American (3, 3)
Colonial institutions, the independence movement, development of modern states, the organization of American States and other international problems.

HIST 364 - History of Japan (3)
Social, political and intellectual development of Japan from the earliest times to the present; emphasis on the rise of Japan to world power.

HIST 365, 366 - History of China (3, 3)
Social political and intellectual development of China from the earliest times to the present; emphasis on the rise of modern nationalism, Maoist period.

HIST 371 - European Diplomatic History 1871 (3)
Development of the Modern state system from the Thirty Years War through Napoleon and into the middle of the 19th century.

HIST 372 - European Diplomatic History Since 1871 (3)
From the unification of Germany through the two world wars to detente.

HIST 375 - Military History (3)
The art of war and its impact on society from 18th century to present; military developments analyzed in terms of organization, strategy and technology.

HIST 377 - The Second World War, 1939-1945 (3)
An in-depth study of the origins, conduct and consequences of the war, with emphasis on its political, diplomatic, economic, and military aspects.

HIST 380 - United States Since 1945 (3)
Emphasis on major issues of the postwar era, including the Cold War, McCarthyism, civil rights movements, Vietnam, Black militancy and feminism.

HIST 381 - Europe Since 1945 (3)
From end of World War II to present, with emphasis on Cold War, Common Market, colonial independence movements and domestic developments.

HIST 382 - Far East Since 1945 (3)
Cultural, social, economic and political developments in modern China, Japan, and Korea, with emphasis on relations of those countries with United States and Soviet Union.

HIST 390 - America and Vietnam: 1945 to the Present (3)
A political, diplomatic, military, economic, and cultural study of Vietnam and of the United States' role in Indochina.

HIST 401, 402 - United States Cultural and Intellectual History (3, 3)
Development of American culture and ideas through major historical figures and events; emphasis on law, science, religion and reform.

HIST 411 - European Cultural and Intellectual History to the Enlightenment (3)
Analysis of significant developments in philosophical, political religious, social and scientific thought, and their impact upon European culture from the Renaissance through the Enlightenment.

HIST 412 - European Cultural &Intellectual History Since the Enlightenment (3)
Analysis of significant developments in philosophical, political, religious, social and scientific thought, and their impact upon European culture from the 18th century to the present.

HIST 471 - Special Studies in History (3)
Prerequisite; junior or senior status. Seminars on related topics of particular historical importance. See *Schedule of Courses* each semester.

HIST 481 - Historiography (3)
Prerequisite: junior or senior status. The study of historical interpretation, emphasizing the major developments which have shaped the discipline of history.

HIST 491 - Individual Study (3)
Prerequisite: permission of the instructor. Individual investigation of a subject of historical significance, directed by a member of the Department.

HIST 495 - Historical Research (3)
Prerequisite: junior or senior status. Introduction to methods of historical research and writing, involving investigation of a subject of the student's choice.

HIST 499 - Internship
Supervised off-campus experience, developed in consultation with the Department. Credits variable. No more than 3 credits may be counted in the major.

American Studies Course Offerings

Students entering the College as of Fall 1989 are required to take HIST 131, 132 as prerequisites to AMST 310, 311, 312, 313, and 450. Under special circumstances HIST 131, 132 may be taken concurrently with the core courses. Permission of the director is necessary.

AMST 310 - America at Mid-Century: The 17th Century (3)
An examination of the English inheritance, Indian and white relations, early colonial life and labor, origins of slavery, and Puritanism.

AMST 311 - America at Mid-Century: The 18th Century (3)
The Great Awakening, evangelical protestantism, black-Indian-white inter- action, class structure, agricultural practices, themes of American identity.

AMST 312 - America at Mid-Century: The 19th Century (3)
Emergence of industrial capitalism, moral reform movements, slavery, concept of individualism, Darwinism theory, the family, national character traits.

AMST 313 - America at Mid-Century: The 20th Century (3)
Consumption ethics, ethnicity, black culture, American capitalism, cold war and the shaping of modern culture.

AMST 350 - Topics in American Studies (3)
This course will explore specific topics in American Studies: e.g., "The Impact of Darwin on American Thought," offered occasionally, depending on faculty resources and student interest. It may be used to meet part of the related field requirements.

AMST 450 - Issues in Contemporary America: Senior Seminar (3)
An examination of selected current issues in American culture, specific issues. Topics may vary from year to year.

AMST 491 - Independent Study (3)
Directed individual research on problems in American Studies, as approved by the Director.

AMST 499 - Internship (variable credit)
Supervised off-campus experience, developed in consultation with the Director. No credit in the major.

Interdisciplinary Courses

IDIS 200 - All College Seminar (3)
Prerequisite: sophomore standing. Specifically designed for the sophomore year, this course offers an opportunity to investigate major issues in a multi-disciplinary way. The emphasis is on participation; the course is both writing intensive and discussion intensive. Faculty are drawn from all areas of the College, and topics are chosen that benefit from a wide variety of approaches.

IDIS 201 - The Creative Process in Art and Literature (3)
The course exposes students to the creative process in art and literature through drawing and writing exercises. Students learn how to conceptualize and express themselves in both media, and through exposure to historical examples of artists who write about art and writers who illustrate their work, they develop an understanding of the interrelationship of the creative process in the two media and of the standards for critical judgment.

International Affairs

See Department of Political Science and International Affairs

Italian

See Department of Modern Foreign Languages

Latin

See Department of Classics, Philosophy, and Religion

Library Science

Associate Professor
LeRoy S. Strohl, III (B.A., University of Pennsylvania; M.A., Hanover College; M.S.L.S., University of Kentucky; Library Director)

Assistant Professors
Charles D. Balthis (B.A., Randolph-Macon College; M.S.L.S., Catholic University of America; Cataloger)
James E. Bales (B.A., Illinois College; M.S.L.S., University of Illinois; Instructional Services and Reference Librarian)
Jeanne M. Drewes (B.A., M.A.L.S., University of Missouri; Director of Instruction and Access Services)
Mark G. R. McManus (B.S., M.L.S.,University of Tennessee; M.A., Auburn University; Assistant Library Director and Systems Librarian)

John Philip Mulvaney (B.A., St. Johns University; M.A., University of Toronto; M.L.S., Rutgers University; Ph.D. University of Pittsburgh; Director of Collection Development and Management Services)
Brenda D. Sloan (B.S.C., North Carolina Central University: M.S.L.S. Atlanta University; Special Collections Librarian)

Mr. Balthis' research interests have been devoted to the study of index terms and subject headings in information retrieval, and he continues his study in the geography of eastern Europe. Mr. Bales' research on Horatio Alger, Jr. resulted in a highly acclaimed book, and more recently his scholarship has resulted in the publication of a biobibliography of Kenneth Roberts. Ms Drewes has published on Malory's *Morte d'Arthur* and is currently conducting research on the writings of John Ruskin. Mr. McManus is currently completing his doctorate in Public Communication at the University of Maryland. His research interests focus on ideological constraints in political discourse. Mr. Mulvaney is currently doing research into the nature of graduate library education programs. Ms Sloan's research centers on library conservation and preservation, African-American studies and social actions. Mr. Strohl has continued his studies on early American landscape design and has done research on the writings of Anthony Powell. His most recent studies have been focused on the architecture and design of automated academic libraries.

Convinced that the library is an integral part of the educational program of the College, the library faculty offer a variety of services designed to develop students' competence in library use and their understanding of the increasingly complex world of information. These programs include assistance to classes on research projects; the one-credit course "Library Resources and Their Use"; term paper clinics at which a student beginning a research project receives individual assistance from a reference librarian; and basic library skills regularly taught through the English 101 classes and the BLS Orientation Seminar. To help students use resources effectively, the library staff produces a number of subject-related research guides and a library handbook.

LIBS 101 - Library Resources and Their Use (1)
Introduction to college library resources with emphasis on techniques of research.

LINGUISTICS

See Department of English, Linguistics, and Speech

Liberal Studies Courses

BLST 0100 - Orientation (1)
An introduction to the BLS program, study skills, time management, and library use. Open only to BLS students.

BLST 0101 - Portfolio Development (1)
Techniques for identifying, defining, and presenting experiential learning for assessment.. Open only to BLS students.

Master of Arts in Liberal Studies

Mary W. Pinschmidt, *Associate Dean for Adult and Continuing Education*
Paul C. Slayton, Jr., *chair*

Faculty

Lewis P. Fickett, Jr., Distinguished Professor of Political Science
Donald E. Glover, Distinguished Professor of English
Cornelia D. Oliver, Distinguished Professor of Art
Paul C. Slayton, Jr., Distinguished Professor of Education
George M. Van Sant, Distinguished Professor of Philosophy

Clavio F. Ascari, Professor of Modern Foreign Languages
Roger J. Bourdon, Professor of History
Daniel A. Dervin, Professor of English
Susan J. Hanna, Professor of English
Diane F. Hatch, Professor of Classics
William Kemp, Professor of English
John M. Kramer, Professor of Political Science
Richard J. Krickus, Professor of Political Science
Mary W. Pinschmidt, Professor of Biology
Roy H. Smith, Professor of Psychology
Brenda E. Vogel, Professor of Education
Janet F. Wishner, Professor of Philosophy
Lawrence A. Wishner, Professor of Chemistry
Paul M. Zisman, Professor of Education

Robert F. Boughner, Associate Professor of Classics
Marjorie O. Collins, Associate Professor of English
Richard H. Warner, Associate Professor of History

The Master of Arts in Liberal Studies program is specifically designed for area adults who wish to pursue a graduate degree part-time. It is a generalist rather than professional program, with courses designed around central texts, ideas, movements, and problems in Western civilization. Many of the courses are interdisciplinary, and the faculty is drawn from departments across the College.

Details about admission, tuition, and transfer credit are available in the various general sections of the *Catalogue*. Mary Washington is an active member of the Association of Graduate Liberal Studies Programs.

Degree Requirements

MALS 511, 512; two colloquia (MALS 520 to MALS 524); 5 electives; MALS 590.

With the permission of the MALS chair and the instructor, advanced undergraduates may take selected MALS courses for undergraduate credit.

Initial Courses

MALS 511, 512 - Ideas and Movements of the Western World I, II (3,3)
A broad view of the assumptions, ideas and movements that have made Western civilization; course sessions are interdisciplinary and explore major human achievements in a chronological perspective.

Colloquia

MALS 520 - Aging in Modern America (3)
Prerequisite: MALS 511, 512 or comparable interdisciplinary experience. An investigation of aging in America from the viewpoints of the scientist, the social scientist and the humanist. The course will ask how old age can be defined, what we know and understand about the process of aging and where the aged belong in the family and society.

MALS 521 - Language Acquisition: Linguistic and Educational Perspectives (3)
Topics range from the innate mechanisms of language learning to theory of language production and reception and learning in structured situations.

MALS 522 - On Becoming Human (3)
Prerequisite: MALS 511, 512 or comparable interdisciplinary experience. Designed to study becoming human as a process that is racial, social and individual. Using the viewpoints of psychology, anthropology and biology, students trace this process through cultural, scientific and literary materials.

MALS 523 - Beauty, Truth and Reality: The Aesthetics of Science (3)
Prerequisite: MALS 511, 512 or comparable interdisciplinary experience. Physicists and mathematicians speak of the "poetry" of their equations. Biologists speak of the "beauty" of natural phenomena. Chemists, the most practical of all, pretend to laugh at the others while recognizing that the order of nature has an intelligent stability and fascination that is beyond scientific explanation. Is this seemingly untestable dimension an aesthetic one? Can it be tested and what has been its role in the evolution of science? The fourteen class sessions represent a critical analysis of these questions.

MALS 524 - From Speaking Act to Natural Word: Communication, Language, and Meaning (3)
Prerequisite: MALS 511, 512 or comparable interdisciplinary experience. An examination of the nature of both communication and language drawing on the areas of biology, linguistics, literature, music, and psychology. Through lecture, discussion and reports, students address the questions of the physiological basis for language, the psychological uses of language, and the structure and function of language as a self-referenced system for representing reality.

Electives

MALS 550 - Issues and Movements in Curriculum (3)
What are American schools teaching children and why? What influence have religion, government, business, minorities, and movements for student and teacher rights had on the curricula of American schools? These and other topics will be under discussion.

MALS 552 - Philosophy, Philology and Literature (3)
This course explores ideals and values of Greek society as they are expressed in tragedy, epic, philosophy and history. The intention is to trace interrelationships between the works themselves and also between values expressed in the works.

MALS 553 - Historical Themes and Problems in Early Modern Europe (3)
This course examines major historical themes and historiographical controversies from the period 1559-1798 in European history. Topics: the debate on social class in Tudor and Stuart England, "The Becker Thesis" and continuity and change in The Enlightenment. The course involves lecture, seminar discussion and written essays.

MALS 555 - Literary Criticism and the Creative Imagination (3)
An exploration of the theory and practice of literature as a crafted creation through reading major critics and applying their views to literary works by Sophocles, Shakespeare, Keats and others. Students learn how to develop their own theory and then apply it.

MALS 556 - Contemporary Dynamics in World Politics (3)
An in-depth study of the volatile and evolving contemporary international systems, forces, and challenges generated by the major participants in world politics, including the United States, Soviet Union, People's Republic of China and Third World countries.

MALS 557 - English Prose Style: History, Principles and Practice (3)
Designed to develop an appreciation for and greater competence in English "plain style." The course will investigate past practice, study current issues and provide for individual writing.

MALS 558 - Marine Ecology (4)
Prerequisites: Biology 121-122 or the equivalent, 1 year of college chemistry, invertebrate zoology, 1 course in ecology. An introduction to biological, chemical, and physical aspects of various marine ecosystems. Field collecting and trips. Summer only.

MALS 560 - The Character of Physical Law (3)
Prerequisite: at least 1 college physical science course. A non-mathematical survey of important developments in physical science for the layman. Topics:

origins and nature of science, classical physics, science and technology, the relativistic revolution, the quantum revolution, physical cosmology, birth and death of stars, the origin of life, epistemology.

MALS 561–Continuity & Change in Human Behavior During the Life Cycle (3)
Prerequisite: general college psychology or the equivalent. An examination of behavior, cognition, and personality as they change during the life cycle Topics: classical and current theory, current empirical research, study of unanswered questions.

MALS 563 - Dante's Divine Comedy (3)
Prerequisite MALS 511, 512. A study of the Divine Comedy (in translation) as a literary landmark and historical document, emphasizing medieval structure and innovative realism.

MALS 564 - Comparative Theories of Mind in Education (3)
A study of four major conceptions of mind in education: education as rational thinking, as mental development, as communication, as self-actualization. Focus on how these theories are translated into practice.

MALS 565 - U. S. National Security: Policies and Processes (3)
An evaluation of domestic and international factors bearing on the design and implementation of U. S. national security policies. Topics: strategic doctrine, key policy makers and institutions, projected national security problems and prospects.

MALS 566 - Contemporary Politics in the United States and the Soviet Union (3)
Comparative study of political life in the U. S. and U. S. S. R. Topics: political socialization, response to problems of crime, drug abuse, environmental pollution, urban and energy crises.

MALS 567 - Sexuality & Feminism in Nineteenth Century English Literature (3)
An exploration of the concept of sympathetic love in 19th century English poetry and prose. Under discussion are questions concerning the effect of the theory of sympathy on the creation of an androgynous sexual ideal and its effect on both feminist polemic and the creative literature of the period.

MALS 568 - Virgil and Milton (3)
Prerequisite: MALS 511, 512 or comparable interdisciplinary experience. The course teaches students how to read to of the greatest poems in Western culture. It also illustrates the fact that for great writers literature is a system of inspirational conventions which transcend the minutiae of local times, native languages, and trivial originality. Each class meeting will have a lecture, a discussion period, and an oral reading from Homer.

MALS 569 - Contemporary Problems of the Third World (3)
The course explores in depth the historical, economic, and political factors which give rise to the Nationalist Revolution; examines in the Middle East and South Asia the major political and economic problems common to Third World nations; and considers the impact of the Third World on world politics.

MALS 570 - Special Topics (3)
Topical courses offered from time to time for special occasions or audiences; not repeated.

MALS 573 - Professional Ethics (3)
This course raises and discusses moral and social problems that arise in the course of teaching, conducting business, counseling patients and clients, and al-

locating economic, health, and other vital resources. The object is to make students better professionals and better able to deal productively with professionals in other fields. The types of concepts to covered are loyalty and integrity, authoritarianism and paternalism, the place of utilitarian considerations, and the role of principles in making moral and professional decisions.

MALS 574 - America's Revolutionary Generation: From Colonial Status to Independent Nation (3)
The revolutionary generation that initiated the separation from Great Britain and created the American republic and the Constitution. Emphasis on social history and biography within the context of political thought and events.

MALS 575 - Young Adult Literature (3)
Origins and development of the body of literature written for and dealing with concerns and interests of young adult readers. Literary analysis of works and the development of teaching rationales.

MALS 576 - Understanding Shakespeare (3)
Prerequisite: graduate standing. The course explores a sampling of Shakespeare's plays with particular attention to how he tells stories within the constraints of the theater. Frequent comparisons to sources, contemporaries, and modern playwrights.

MALS 577 - The American Dream: Nature, Progress, and Isolation (3)
An exploration of the central idea of America's definition of its values and vision as seen through literature and art. The course is organized around thematic contrasts and conflicts which are peculiarly American in their expression and resolution: nature vs. civilization; innocence vs. experience; the garden vs. the machine; the heart vs. the head; homegrown vs. imported.

MALS 578 - The French and Russian Revolutions (3)
A comparative examination of the causes, course, and results of the French Revolution of 1789 and the Russian Revolution of 1917.

MALS 579 - Homer (3)
This course explores the *Iliad* and the *Odyssey* as oral epics, as commentaries on Classical Greek culture, and as the ground from which Western literature arises. The course emphasizes direct engagement with the poems, illuminated by the archeological record, literary criticism, and comparisons with other works.

MALS 590 - Individual Project (3)
Prerequisite: 21 hours of MALS course work. A creative or investigative project proposed by the student, approved by the program director, and guided by a member of the graduate faculty.

Department of Mathematics

Manning G. Collier, *Chair*
David L. Wilson, *Career Adviser*

Associate Professors
Manning G. Collier (B.S., Furman University; M.S., Ph.D., Vanderbilt University)
Stephen L. Lipscomb (B.A., Fairmont State College; M.A., West Virginia University; Ph.D., University of Virginia)
Janet G. Zeleznock (B.A., St. Francis College; M.A., Duquesne University; 1980 Simpson Award for Excellence in Teaching)

Assistant Professors
J. Larry Lehman (B.A., Eastern Mennonite College; Ph.D., University of Virginia)
David L. Wilson (B.S., M.A., Ph.D., Kent State University
Richard M. Zeleznock (B.S., California State College; M.A., Rutgers University)

Senior Lecturers
Betty P. Durrer (B.L.S., Mary Washington College; M.A., University of Virginia)
Marie P. Sheckels (B.A., St. Mary's College; M.A., The Pennsylvania State University; Ph.D., University of Maryland)

The courses in mathematics vary from the theoretical to the applied so that a major in mathematics can be a foundation for a career in industry, government, teaching or the pursuit of a higher degree in graduate school. The department also encourages double majors, giving students entrance to a wide variety of fields upon graduation.

The department is host to a chapter of Pi Mu Epsilon, a national honorary mathematics fraternity. It also offers the Oscar Schultz Award in mathematics to a graduating senior in the department. A student in mathematics can obtain Honors in mathematics by completing a directed study which culminates in an approved Honors thesis.

Requirements for the Major

In the Major Subject: 24 credits in Mathematics courses beyond 207, including 325, 331, 332, 341, 342, and at least two 400-level, 3-hour courses excluding 499. (MATH 251 and 499 cannot be counted in the major.)

Additional Major Requirements: 12 credits from the following: any mathematics courses above MATH 207 except 251 and 499; any courses in computer science including 205 or above CPSC 215; any courses in physics except PHYS 103, 104; PHIL 306.

Course Offerings

MATH 111 - Precalculus (3)
Emphasis on elementary functions including rational, exponential, logarithmic and trigonometric functions.

MATH 112 - Liberal Arts Mathematics (3)
Topics from which course content will be chosen include sets, probability, statistics, games, computing, elementary calculus topics, matrices, graphs, counting, and linear programming. Designed for the non-major.

MATH 121 - Calculus I (3)
First course in calculus. Includes introduction, limits including proofs, derivatives, Newton's method, antiderivatives, and rectilinear motion.

MATH 122 - Calculus II (3)
Prerequisite: MATH 121. Includes definite integration and its applications including work, logarithmic, exponential, inverse trigonometric, and Hyperbolic functions, techniques of integration, and improper integrals. Prospective majors should complete this course before the fall of the sophomore year.

MATH 125 - Introduction to Discrete Structures (3)
An introduction to topics which may include induction, recursion, algorithms, set theory, combinatorics, graphs, trees, and finite-state machines. Prospective mathematics majors should take this course during the freshman year. Also listed as CPSC 125.

MATH 200 - Introduction to Statistics (3)
First course in statistical methods. Includes descriptive and inferential techniques with examples from diverse fields.

MATH 207 - History of Mathematics (3)
Prerequisite: Any one of MATH 111, 112, 121, 125, 200, or permission of the instructor. A concise survey of the historical development of mathematical ideas, followed by a more focused look at several 20th-century concerns of mathematics. Readings on the lives and impact of pre-eminent mathematicians form the survey's framework. Topics will vary with instructor, but might include the famous paradoxes and problems, mathematics and the computer.

MATH 223 - Calculus III (3)
Prerequisite: MATH 122. Includes L'Hopital's rules, infinite series, rotation of axes, polar coordinates, parametric equations, 2- and 3-dimensional vectors, spheres, and cylinders.

MATH 224 - Calculus IV (3)
Prerequisite: MATH 223. Includes three-dimensional space, partial derivatives, multiple integrals, line integrals, surface integrals, and other advanced topics.

MATH 251 - Basic Numerical Mathematics (3)
Prerequisite: MATH 121. Recommended: MATH 122 concurrently. An introduction to the numerical methods for evaluating expressions, finding zeros, numerical integration, solving simultaneous linear equations, etc., using the computer as a tool. Does not count in the major program.

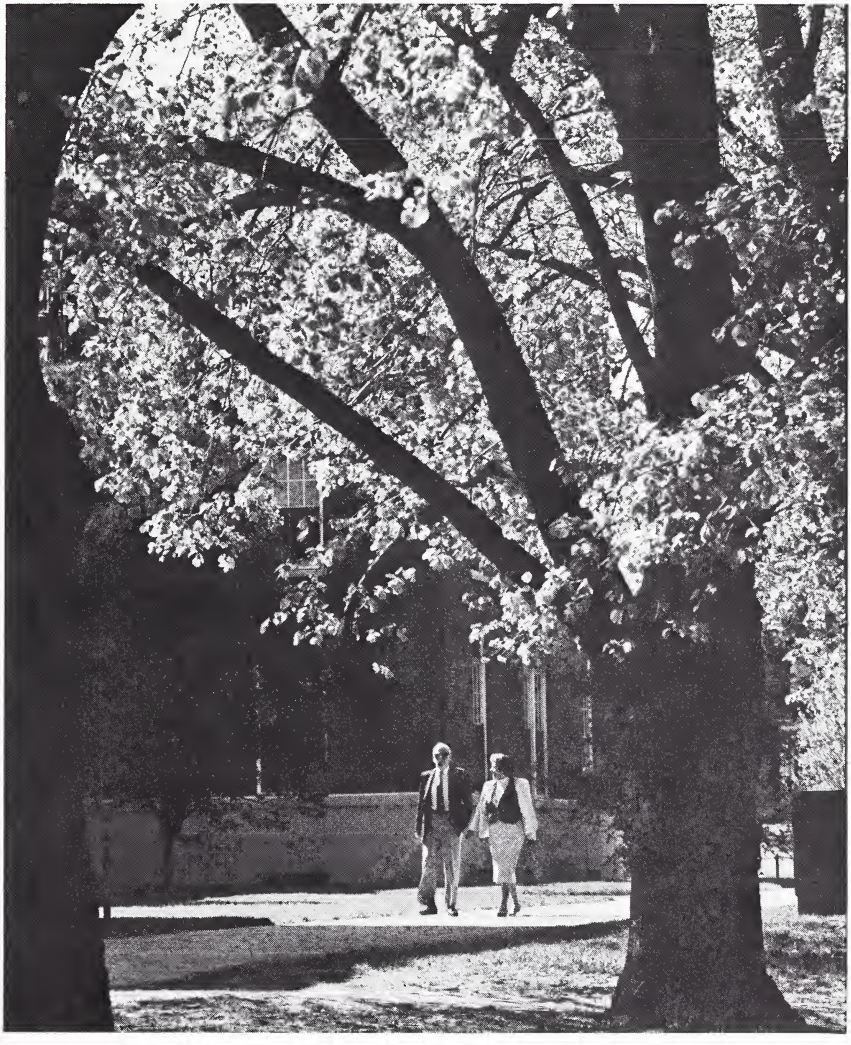
MATH 300 - Linear Algebra (3)
Prerequisite: MATH 122. An introduction to linear algebra. Usually includes matrix algebra, systems of equations, vector spaces, inner product spaces, linear transformations, and eigenspaces. (Mathematics majors should take this course concurrently with MATH 223.)

MATH 312 - Differential Equations (3)
Prerequisite: MATH 122. Ordinary differential equations which may include Laplace transformations, spring problems, approximations, and partial differential equations.

MATH 315 - Advanced Calculus (3)
Prerequisite: MATH 224. Topics vary at the discretion of the instructor but include the implicit and inverse function theorems.

MATH 321 - Number Theory (3)
Prerequisite: MATH 122 or permission of instructor. An elementary, theoretical study of the properties of the integers.

MATH 325 - Discrete Structures (3)
Prerequisite: MATH 122 and CPSC 205. A survey of topics selected from Boolean algebra, functions and relations, logic and networks, equivalence, recursion, principles of combinatorics, inclusion-exclusion, graph theory, semigroups, lattices, finite state machines, Turing thesis, computational complexity, codes and posets. Also listed as CPSC 325.



MATH 331, 332 - Abstract Algebra (3, 3)
Prerequisite: MATH 300 or permission of instructor. Mathematical systems including groups, rings, fields and vector spaces. Only in sequence.

MATH 341, 342 - Real Analysis (3, 3)
Prerequisite: MATH 300. Corequisite: MATH 224. A rigorous, real analysis approach to the theory of calculus. Only in sequence.

MATH 351, 352 - Numerical Analysis (3, 3)
Prerequisites: MATH 300, 312, and CPSC 205. Numerical methods applied to solutions of equations, interpolation, differentiation, integration, and solutions of differential equations. Only in sequence.

MATH 372 - Non-Euclidean Geometry (3)
Prerequisite: MATH 331 or 341. Axiomatic development of non-Euclidean geometry.

MATH 379 - Junior Seminar (2)
Prerequisite: MATH 224 and junior standing. Focused upon one or more subjects not addressed in other mathematics courses. Representative topics include foundation of mathematics, naive (formal) set theory, axiomatic development of the natural numbers, rigorous construction of the real numbers, and foundations of topology in 2- and 3-dimensional Euclidean space. Each student will be assigned topics to present in concert with the instructor's lectures.

MATH 401, 402 - Probability and Statistical Inference (3, 3)
Prerequisite: MATH 224. An introduction to probability theory and theoretical statistics including probability distribution of discrete and continuous random variables, functions of random variables, methods of estimation, multivariable probability distributions, and hypothesis testing. Only in sequence.

MATH 412 - Complex Variables (3)
Prerequisite: MATH 341. Analytic functions, Cauchy-Riemann conditions, integration, power series, calculus of residues, conformal mappings and applications. (Highly recommended for students planning to go to graduate school.)

MATH 441 - General Topology (3)
Prerequisite: MATH 331 or 341. Point-set theory including connectedness, compactness, continuity and metric space. (Highly recommended for students planning to go to graduate school.)

MATH 461 - Topics in Mathematics (3)
Prerequisite: permission of instructor. Topics such as advanced topology, partial differential equations, optimization, Fourier series, advanced complex variables, ring theory, and modelling. May be taken up to three times for credit.

MATH 479 - Senior Seminar (1)
The student must research and present a senior-level mathematics topic to the class and the mathematics faculty.

MATH 491, 492 - Directed Study (1-3, 1-3)
Prerequisite: departmental permission. Individual study under the direction of a faculty member. May lead to graduation with Honors in Mathematics.

MATH 499 - Internship (1-6)
Supervised off-campus experience, developed in consultation with the Department. Credits variable. Does not count in the major program.

Department of Modern Foreign Languages

Sammy R. Merrill, *Chair*
Juliette B. Blessing, *Career Adviser - French*
Sammy R. Merrill, *Career Adviser - German*
Clavio F. Ascari, *Career Adviser - Italian*
Joseph Bozicevic, *Career Adviser - Russian*
Joanna L. Quann, *Career Adviser - Spanish*

Professors
Clavio F. Ascari (Dottore in Lingue e Letterature Moderne, Universita Bocconi, Milano)
Juliette B. Blessing (L. es L., University of Lille; D.E.S., University of Paris; Diplomée de L'Institut d'Etudes Politiques de Paris; Doct. U., University of Dijon)
Joseph Bozicevic (B.S., Juniata College; M.A., Middlebury College; Ph.D., Georgetown University)
Margaret M. Hofmann (A.B., Wellesley College; M.A., University of New Hampshire; Ph.D., University of Kansas)
John C. Manolis (B.A., Assumption University; M.A., Florida State University; diploma, Institut de Phonetique, University of Paris; Ph.D., Florida State University)
Sammy R. Merrill (B.A., Wake Forest University; M.A., Duke University; Ph.D., Cornell University)
Aniano Peña (M.A., Temple University; Ph.D., University of Pennsylvania)

Associate Professors
Norma W. Batchelder (B.A., Mary Washington College; M.A., University of Wisconsin; Ph.D., Ohio State University)
Rosemary H. Herman (A.B., Woman's College of the University of North Carolina; M.A., University of North Carolina)
Vera Niebuhr (B.A., Douglass College; M.A., Ph.D., University of Wisconsin)
Joanna L. Quann (A.B., Wesleyan College; M.A., Duke University; Ph.D., George Washington University; 1988 Simpson Award for Excellence in Teaching)

Assistant Professors
Andrea Rice-Mikkelsen (B.S., Wichita State University; M.A., Ph.D., Texas Tech University)
Cheryl A. Staunton (A.B., University of Michigan; M.A., Middlebury College Graduate School; Ph.D., George Washington University)

Clavio Ascari's interests are in the Italian and Latin languages, Roman and Italian Civilization, Medieval, Renaissance, 19th and 20th Century Italian Literature. Norma Batchelder's special interests include the contemporary Spanish American novel and theater. Juliette Blessing's major fields of interest are twentieth century French theater, comparative theatrical history, and French cultural history. Joseph Bozicevic's ma-

jor interests are travel and research in the USSR and Eastern Europe. As a Latin Americanist, Rosemary Herman has interests in both Spanish and Portuguese – specifically the 19th and 20th century Spanish American novel, short story, and poetry, and Spanish American culture both abroad and in the Washington, D.C. Hispanic community. The principal interests of Margaret Hofmann are medieval romances and the nineteenth century French novel. John Manolis's major interests are Renaissance poetry, nineteenth century poetry, and the works of George Sand. Sammy Merrill's interests are writers of the German classical period, twentieth century literature, and the literature and culture of the German Democratic Republic. Vera Niebuhr has a special interest in modern German life and civilization, contemporary German women writers, and German films. Aniano Pea is a native speaker from Spain with special interest in Cervantes and the Generation of '98. Joanna Quann's special interests include composition, Golden Age Theater, and the Nineteenth Century Novel in Spain. Andrea RiceMikkelsen is a native speaker whose interests are Latin American Novel and Short Story, Twentieth Century French Novel and Theater, and travelling for research and pleasure. The main interests of Cheryl Staunton are Renaissance French literature and francophone African literature.

Through courses in French, German, Italian, Russian, and Spanish, the department offers students theopportunity to gain proficiency in understanding, reading, writing, and speaking one or more foreign languages. Laboratory facilities with cassettes, tapes, and records are used extensively to supplement classroom instruction. Also available are video cassette recorders and players, and a computer for computer-assisted instruction.

Upper level classes are conducted primarily in the foreign language. Through classroom instruction, individual research, and work in department-sponsored language clubs, students come to know the culture of the people whose language they study. Through internships, students work directly in language-related professions.

Within the major in modern foreign languages, the Department offers concentrations in French, German, and Spanish. Students may also request special majors in Italian and in Russian Studies. Double majors in a foreign language and another discipline are possible. Non-majors may also take advantage of the language program.

The Department provides students an opportunity to reside in small campus residence halls in which the foreign language is spoken and which sponsor various inter-cultural programs each year. Currently each language house has as its resident program director a native speaker of that foreign language.

The Department cooperates with a variety of overseas study programs, advises and encourages students wishing to study abroad, and helps in planning their foreign study programs. Credits can be accepted from abroad to fulfill Department requirements.

Graduates in modern foreign languages may pursue careers in government or in private fields in which the knowledge of a foreign language and culture is essential, including interpreting, translating, research, social services, education, or international business.

Requirements for the French Major

French Option A (Language and Literature): thirty credits in French beyond 201, 202, including 311, 312, 326, 327, 328, 411, 412, 481; and six credits in other literature courses.

French Option B (Language and Civilization): thirty-six credits in French beyond 201, 202, including 311, 312, 313, 326, 327, 328, 315, 316, 411, 412, 481; and three credits in another literature course.

Requirements for the German Major

Eight courses at the 300 and 400 level. GERM 311 is required. A student must take at least two courses in sequence chosen from 393, 394, 395. Total requirement for the major is thirty-two credits.

Requirements for the Spanish Major

Spanish Option A (Language and Literature): thirty credits in Spanish courses beyond 201, 202, including 317, 318, 413, 451; three courses chosen from 323, 324, 327, and 328; three additional credits in Spanish American literature, and six additional credits in peninsular or Spanish American literature.

Spanish Option B (Language and Civilization): thirty-six credits in Spanish and related courses beyond 201, 202, including 315, 316, 317, 318, 393, 413, 485; three courses from 323, 324, 327, and 328; three credits in HIST 361 or HIST 362; and three credits chosen from PSCI 321, PSCI 322, or ECON 382.

French Course Offerings

FREN 101, 102 - Beginning French (3, 3)
Grammar, composition, conversation, reading, laboratory use.

FREN 201, 202 - Intermediate French (3, 3)
Grammar review, reading, composition, laboratory use, oral work.

FREN 311, 312 - Studies in Language I (3, 3)
Prerequisites: French 201, 202. Grammar, composition, reading, conversation.

FREN 313 - Business French (3)
Prerequisites: French 311, 312. Especially designed for those who may be connected with businesses dealing in France or French-speaking countries.

FREN 326, 327, 328 - Survey of French Literature I, II, III (3, 3, 3)
A chronological study of French literature from the medieval period through the late 20th century.

FREN 315 - French Civilization (3)
Prerequisites: 6 hours of Survey of French Literature or permission of the Instructor. Geography and history of France.

FREN 316 - French Civilization (3)
Prerequisites: 6 hours of Survey of French Literature or permission of the Instructor. Contemporary France.

FREN 351 - Seventeenth Century Literature (3)
Prerequisites: 6 hours of Survey of French Literature. Corneille, Moliere, Racine, and other representative works.

FREN 361 - Eighteenth Century Literature (3)
Prerequisites: 6 hours of Survey of French Literature. Fiction, drama.

FREN 371 - Novel of the Nineteenth Century (3)
Prerequisites: 6 hours of Survey of French Literature. Stendhal, Balzac, Flaubert, Zola and short stories.

FREN 372 - Nineteenth Century Poetry and Theater (3)
Prerequisites: 6 hours of Survey of French Literature. Lamartine, Hugo, de-Musset, Dumas and other representative works.

FREN 381 - The Novel of the Twentieth Century (3)
Prerequisites: 6 hours of Survey of French Literature. Proust, Gide, Malraux, Camus and other representative works.

FREN 382 - Twentieth Century Theater (3)
Prerequisites: 6 hours of Survey of French Literature. Claudel, Sartre, Anouilh, Beckett and other representative works.

FREN 411, 412 - Studies in Language II (3, 3)
Prerequisites: FREN 311, 312 and 6 hours of Survey of French Literature. Advanced grammar, composition, conversation. Required of majors. Others by permission.

FREN 481 - Senior Seminar (3)
Selected topics. Required of and limited to senior majors.

FREN 491, 492 - Individual Study (3, 3)
Intensive study of one or more authors selected in consultation with adviser. By permission of the Department.

FREN 499 - Internship
Supervised off-campus experience, developed in consultation with the Department. Credits variable. No credit toward major.

German Course Offerings

GERM 111, 112 - Elementary German (4, 4)
Grammar, emphasis on gaining rapid comprehension and developing fluency in spoken German. Introduction to reading German. Learning to write German.

GERM 211 - Intermediate German (4)
Prerequisites: GERM 112 or equivalent. Grammar review, concentration on reading for comprehension. Honing of oral skills and writing German.

GERM 311 - Introduction to German Literature (4)
Prerequisites: GERM 211 or equivalent. Selected texts from the nineteenth and twentieth centuries. Close attention will be paid to form, content, motifs, character analysis, and social and cultural background.

GERM 317 - German Civilization (4)
Prerequisites: GERM 311. Survey of the culture and civilization of the German-speaking area, with emphasis on the Federal Republic and the GDR.

GERM 375 - German Literature: the Enlightenment through Romanticism (4)
Prerequisites: GERM 311 or equivalent. Representative authors like Lessing, Goethe, Schiller, Kleist, Novalis, Hoffmann, Brentano, Eichendorff.

GERM 376 - German Literature: Post-Romanticism to Turn of the Century (4)
Prerequisites: GERM 311. Representative authors like Heine, Bchner, Grillparzer, Droste-Hlshoff, Hebbel, Storm, Keller, Fontane, Hauptmann.

GERM 385, 386 - German Literature of the Twentieth Century (4, 4)
Prerequisites: GERM 311. Representative authors like Mann, Musil, Kafka, Brecht, Bll, Frisch, Grass, Handke, Aichinger, Wohmann, Bachmann, Wolf, Braun, Kirsch.

GERM 393, 394, 395 - Advanced Grammar, Conversation, Composition (4, 4, 4)
Prerequisites: GERM 211. Intensive written and oral language practice. A vigorous effort is made to expand the student's active vocabulary and help the student develop his/her own style.

GERM 485 - Seminar in German (4)
Prerequisites: GERM 311. Selected topics in German literature, German cultural studies, or Germanic linguistics.

GERM 495, 496 - Individual Study (4)
Prerequisite: Approval of the instructor.

GERM 499 – Internship
Supervised off-campus experience developmed in consultation with the Department. Credits variable. No credit toward major.

Italian Course Offerings

ITAL 101, 102 - Beginning Italian (3, 3)
Grammar, composition, conversation, reading, laboratory use.

ITAL 201, 202 - Intermediate Italian (3, 3)
Grammar review, reading, oral work, laboratory use.

ITAL 291, 292 - Studies in Language (3, 3)
Reading, conversation and composition in Italian with emphasis on communication and analysis of language through lectures and discussions.

ITAL 315, 316 - Society and Civilization (3, 3)
Literary, social and cultural history of the Italian people from the fall of the Roman Empire to the 20th century.

ITAL 373 - Nineteenth Century Literature (3)
Includes Manzoni, Foscolo, Leopardi, D'Annunzio, Verga, Pascoli, Carducci, Nievo.

ITAL 381, 382 - Modern Italian Literature (3, 3)
From Pirandello to Montale; prose and poetry of Gozzano, Svevo, Ungaretti, Moravia, Carlo Levi, Cardarelli, Palazzeschi, Buzzati, Silone, and others.

ITAL 383 - Modern Italian Literature (3)
From Pirandello to Montale; prose and poetry of Svevo, Ungaretti, Moravia, Carlo Levi, Buzzati, Silone, Pasolini, Calvino and others.

ITAL 395 - Italian Literature in Translation, Dante's Divine Comedy (3)
Taught in English. A thorough study of the *Divine Comedy* in its historical and cultural background.

ITAL 396 - Italian Literature in Translation: Masterpieces of the Renaissance (3)
Taught in English. A study of major Renaissance authors. Petrarch, Boccaccio, Cellini, Ariosto, Castiglione, Tasso, Machiavelli, etc.

ITAL 491, 492 - Individual Study (3, 3)
Intensive study of one or more authors selected by student in consultation with adviser.

ITAL 499 - Internship
Supervised off-campus experience, developed in consultation with the Department. Credits variable.

Russian Course Offerings

RUSS 101, 102 - Beginning Russian (3, 3)
Fundamentals of spoken and written Russian.

RUSS 201, 202 - Intermediate Russian (3, 3)
Prerequisite: RUSS 102 or equivalent. Review, completion of fundamentals, and reading.

RUSS 215 - Russian Culture (3)
Survey of Russian cultural heritage: art, dance, folklore, geopolitics, literature, music, religion, screen, theater, etc. Conducted in English.

RUSS 291 - Reading, Composition and Conversation (3)
Prerequisite: RUSS 202 or equivalent.

RUSS 295 - Russian Literature in English Translation - XIX Century (3)
Major Russian writers and literary trends with a brief survey of pre-Pushkin literary activity. Conducted in English.

RUSS 296 - Russian Literature in English Translation - XX Century (3)
Major Russian writers and literary trends from Gorky to Solzhenitsyn; transition from the Imperial to the Soviet era; from formalism to socialist realism. Conducted in English.

RUSS 300 - Phonetics, Morphology, Syntax (3)
Prerequisite: RUSS 202 or equivalent. Sounds and transcription, structure, simple and compound sentences.

RUSS 323 - Readings in Scientific Russian (3)
Prerequisite: RUSS 202 or equivalent. Understanding and translating Russian popular science texts; familiarizing the student with terminology and great scientists in various disciplines.

RUSS 324 - Readings in Commercial Russian (3)
Prerequisite: RUSS 202 or equivalent. Understanding, translating, modern Russian business texts; composing and typing business letters.

RUSS 397 - Dostoevsky and Tolstoy in English Translation (3)
Reading and analysis of two major novels with selective sampling of other representative works including literary criticism.

RUSS 491, 492 - Individual Study (3, 3)
Research on adviser-approved topic in language or literature. Not to duplicate any regular course.

RUSS 499 - Internship
Supervised off-campus experience, developed in consultation with the Department. Credits variable.

Spanish Course Offerings

SPAN 101, 102 - Beginning Spanish (3, 3)
Grammar, conversation, reading, laboratory use.

SPAN 201, 202 - Intermediate Spanish (3, 3)
Grammar review, reading, oral work, laboratory use.

SPAN 315 - Spanish Civilization (3)
Prerequisites: Spanish 317, 318. Geography, history, and the social, political and cultural background of Spain and the Spanish people.

SPAN 316 - Spanish American Civilization (3)
Prerequisites: Spanish 317, 318. Geography, history, and the social, political and cultural backgrounds of Spanish America and the Spanish American people.

SPAN 317 - Studies in Language I (3)
Grammar and composition.

SPAN 318 - Studies in Language I (3)
Grammar and conversation.

SPAN 323, 324 - Introduction to Spanish Literature (3, 3)
History and study of examples of Spanish literature from the Middle Ages to present day.

SPAN 327, 328 - Survey of Spanish American Literature (3, 3)
History and study of examples of Spanish American literature from the Colonial Period to present day.

SPAN 351 - Drama of the Golden Age (3)
Prerequisite: any two survey courses in Spanish literature (323, 324, 327, 328). Lope de Vega, Tirso de Molina, Calderon de la Barca.

SPAN 372 - Nineteenth Century Novel (3)
Prerequisite: any two survey courses in Spanish literature (323, 324, 327, 328). Pardo Bazan, Alas, Perez Galdos and other representative authors.

SPAN 378 - Spanish American Modernismo and Postmodernismo (3)
Prerequisite: any two survey courses in Spanish literature (323, 324, 327, 328).

Poetry and prose of modernismo from 1888 through World War I including Dario, Marti, Silva, Nervo and others along with the poetry of the postmodernistas, Mistral, Neruda, Borges, Paz and others.

SPAN 381 - The Generation of '98 (3)
Prerequisite: any two survey courses in Spanish literature (323, 324, 327, 328). Unamuno, Azorin, Baroja, Machado and Valle-Inclan.

SPAN 382 - Twentieth Century Drama (3)
Prerequisite: any two survey courses in Spanish literature (323, 324, 327, 328). Benavente, Garcia Lorca, Casona, Buero Vallejo and others.

SPAN 383 - Contemporary Spanish Prose (3)
Prerequisite: any two survey courses in Spanish literature (323, 324, 327, 328). Emphasis on post-Civil War novelists.

SPAN 385 - Twentieth Century Spanish American Novel (3)
Prerequisite: any two survey courses in Spanish literature (323, 324, 327, 328). Garcia Marquez, Vargas Llosa, Fuentes, Puig and others.

SPAN 386 - The Twentieth Century Spanish American Short Story (3)
Prerequisite: any two survey courses in Spanish literature (323, 324, 327, 328). Borges, Fuentes, Rulfo, Arreola and others.

SPAN 388 - Twentieth Century Spanish American Drama (3)
Prerequisite: any two survey courses in Spanish literature (323, 324, 327, 328). Solorzano, Carballido, Aguilera Malta, Wolff, Garro and others, plus collective and chicano drama.

SPAN 393 - Spanish for Professional Use (3)
Prerequisites: SPAN 291, 292. Study of specialized vocabularies and their application to various professions.

SPAN 413 - Studies in Language II (3)
Prerequisite: any two survey courses in Spanish literature (323, 324, 327, 328). Advanced Spanish syntax, composition, conversation.

SPAN 451 - Intensive Study of Cervantes (3)
Prerequisite: any two survey courses in Spanish literature (323, 324, 327, 328). Reading and intensive study of Cervantes' masterpiece.

SPAN 481 - Spanish Seminar (3)
Prerequisite: any two survey courses in Spanish literature (323, 324, 327, 328). Selected topics.

SPAN 485 - Spanish American Seminar (3)
Prerequisite: any two survey courses in Spanish literature (323, 324, 327, 328). Selected topics.

SPAN 491, 492 - Individual Study (3, 3)
Prerequisite: any two survey courses in Spanish literature (323, 324, 327, 328). Intensive study of topics selected by student in consultation with adviser. By permission of the Department.

SPAN 499 - Internship
Supervised off-campus experience, developed in consultation with the Department. Credits variable.

Department of Music

James E. Baker, *Chair*
Patricia P. Norwood, *Career Adviser*

Professors
James E. Baker (B.S., M.Ed., Pennsylvania State University; D.M.A., The Catholic University of America)
Bernard C. Lemoine (B.M., Oberlin Conservatory of Music; M.M., University of Illinois; Ph.D., The Catholic University of America)

Associate Professors
David J. Long (B.M., Arizona State University; M.M., D.M.A., University of North Texas)
Patricia P. Norwood (B.M., Wheaton College; M.M., Ph.D., University of Texas)

Assistant Professors
Stephen J. Burton (B.M.E., M.M.E., Florida State University; D.M.A., University of Cincinnati)
Martha V. Fickett (B.A., Mary Washington College; M.M., University of Michigan; Ph.D., The Catholic University of America)

The Department of Music currently serves the educational needs of students with a faculty of six full-time, who are listed above, and eight part-time members. All courses in music history and literature (MUHL) and music theory (MUTH) are taught by full-time faculty.

Patricia Norwood teaches the Requiem Mass, The Great Composers, and The Symphony. Martha Fickett teaches Twentieth Century Music and topics courses in Mozart and Beethoven. Both Norwood and Fickett share teaching responsibilities in the upper level music history courses Music Through and Music From Beethoven. Choral Literature is taught by Stephen Burton, Keyboard Literature by Bernard Lemoine, the History of Jazz by David Long, and the History of Musical Instruments by James Baker.

The music theory courses (MUTH) are almost exclusively taught by Bernard Lemoine and David Long, with an occasional assist from other full-time faculty. Patricia Norwood joins with them in the team-taught Senior Seminar. David Long teaches composition. Independent Study and Intern Programs are guided by full-time faculty.

Music performance courses (MUPR) are taught as follows: Lawrence Aversano: woodwinds; James Baker: woodwinds, conducting, College-Community Symphony Orchestra; Deborah Barley: woodwinds; Stephen Burton: voice, conducting, Mary Washington Chorus, Mary Washington Singers, Fredericksburg Singers; Suzanne Collier: voice; Edgar Drake: violin, viola, contrabass, guitar; Martha Fickett: piano; Marilla Haas: piano, organ; Bernard Lemoine: piano, David Long: percussion, Jazz Ensemble; Charlotte Lucy: cello; Elizabeth McKeachie: harp; Patricia Norwood: brass, Old World Consort; and Jan White: violin, viola.

Music Education courses (EDUC, MUED) are taught by James Baker and Stephen Burton.

The Department of Music offers courses in music theory, music history and literature, and courses in musical performance for both the music major and for students whose primary interests are in other disciplines but in whose lives music is also a vital force. The major program includes intensive study in both academic analysis and performance. Required courses in the music major are presented sequentially and are available to the non-music major if taken in sequence. It is possible for students to major in music and another discipline simultaneously.

As in all liberal arts programs, the emphasis is on broad coverage rather than specialization, although specialization is possible through careful selection of elective courses, independent study projects, and intern programs.

Music majors have the foundation for graduate study and can pursue careers in the performing arts or public school teaching. Yet many work in non-musical professions for which they consider their musical studies valuable. Students can also consider the serious study of music as an intellectual pursuit for personal enrichment.

To support its academic and performance offerings the Department of Music houses a music listening and resource center, an electronic music laboratory, a class piano laboratory, and practice and rehearsal facilities. It also use computers and other electronic technology to assist students in music instruction.

The Department and the College presents public musical performances throughout the academic year. Students and faculty appear in general recitals, senior and faculty recitals, and perform with the College-Community Symphony Orchestra, the Mary Washington Chorus, the Mary Washington Singers, the Fredericksburg Singers, the Mary Washington Jazz Ensemble, the Old World Consort, and in various other vocal and/or instrumental settings. The Department and the College sponsor visiting performers and lecturers in recital, concert and master-class settings.

The Department also offers a number of performance experiences in vocal, instrumental and keyboard music that are not for credit. These experiences, some on a regular basis and others occasional, range from trios to larger settings. Music of the great composers, popular music, music before 1600, and experimental music are explored.

The Department sponsors chapters of Mu Phi Epsilon, an international professional music fraternity, and the Music Educators' National Conference (MENC).

Requirements for the Major

Students planning to major in Music should take Music Theory (MUTH) 181 and 285 in their first semester. Students should also audition for private study in instrument or voice and a musical ensemble in the performance area (MUPR).

In Major Subject: Music Theory (MUTH) 181, 281, 285, 286, 381, 382, 385, 386, 481, 490; Music History and Literature (MUHL) 275, 376, 377; plus 11 more credits in Music courses above the 100-level. Perfor-

mance requirements may be included in the 11 credits required in addition to the courses in music theory and history and literature.

Additional Major Requirements: All music majors are required to study in their major performance area for a minimum of four semesters. Majors must also participate for four semesters in a performing ensemble or performing assignment sponsored by the Department. All students who study privately are expected to demonstrate consistent progress beyond the ability level exhibited when they entered college. Progress is monitored by jury examination of student performance. The music department expects those who study privately to attend monthly Department recitals. Student progress in all music areas (MUTH, MUHL, MUPR) is evaluated through an Outcomes Assessment program; a portfolio of both written and recorded examples is compiled for a final progress assessment by the music faculty.

Course Offerings in Music History and Literature

MUHL 155 - Introduction to Music (3)
The development of aural perception of music through examples of symphonic, choral, operatic, chamber, instrumental, vocal, and keyboard works presented historically. A foundational experience for the non-major.

MUHL 251 - Music in Concert (1)
An application of evaluative techniques and formal concert reporting using available live-performance experiences. May be repeated once for credit.

MUHL 261 - Topics in Vocal Music (3)
Specific topics in the vocal idiom: genre study within an era or over several eras; or examination of works of similar style and/or different styles within an era or over several eras. See *Schedule of Courses* for specific topics.

MUHL 262 - Topics in Instrumental Music (3)
One of the following approaches will be used to explore specific topics in the instrumental idiom: a genre study within an era or over several eras, the works of a specific composer or composers within an era or over several eras, or an examination of works of a similar style and/or different styles within an era or over several eras. See *Schedule of Courses* for specific topics.

MUHL 269 - History of Musical Instruments (3)
The evolution of musical instruments in Western culture, performance practices, literature and development of the orchestra.

MUHL 275 - The Great Composers (2)
An introduction to the style periods of music through selected composers from Bach through Bartok with emphasis on their compositional environment.

MUHL 367 - Twentieth-Century Music (3)
Twentieth-century practices in musical composition and their relationship to historical developments in music of our time.

MUHL 368 - History of Jazz (3)
Development of jazz, ragtime, blues, dixieland, boogie-woogie, and later styles.

MUHL 376 - Music through Beethoven (3)
Prerequisite: MUHL 275 or equivalent. Study in music history culminating in analysis of specific compositions. Research techniques emphasized.

MUHL 377 - Music after Beethoven (3)
Prerequisite: MUHL 275 or equivalent. Study in music history culminating in analysis of specific compositions. Research techniques emphasized.

MUHL 491, 492 - Individual Study (1-3)
Individual study under the direction of a faculty member. A project is required. By permission of the Department.

MUHL 499 - Internship (1-3)
Supervised off-campus experiences, developed in consultation with the Department, the Off-Campus Agency, and the College's Internship Committee.

Course Offerings in Music Theory

MUTH 181 - Introduction to Music Theory (3)
Basic music vocabulary and sound resources explained. Modes, scales, clefs, intervals, notation, acoustics conceptually presented with musical examples.

MUTH 281 - Pre-Baroque Music Theory (3)
Prerequisite: MUTH 181 or equivalent. Principles of counterpoint, 16th century polyphony, evolution of functional harmony and emphasis on the motet and early chorale writing.

MUTH 285 - Skill Development 1 (1)
Development and application of monophonic aural and written skills. Includes sight-singing, dictation and keyboard experiences. A companion course to MUTH 181, and must be taken by music majors with that course.

MUTH 286 - Skill Development II (1)
Prerequisite: MUTH 285. Development and application of two and three-part aural and written skills. Includes sightsinging, dictation and keyboard experiences. A companion course to MUTH 281, and must be taken by music majors with that course.

MUTH 369 - Orchestration (3)
Prerequisite or corequisite: MUTH 382. The techniques of instrumental scoring considered historically and creatively.

MUTH 370 - Introduction to Electronic Music (3)
Prerequisite: MUTH 181 or permission of instructor. Emphasis on historical developments, current status, physical concepts, language and compositional techniques as they apply to synthesized music. Project required.

MUTH 381 - Baroque Music Theory (3)
Prerequisite: MUTH 281. Explores major-minor tonality, figured bass, 7th chords, cadence formulae, modulations and progressions as exemplified in period pieces.

MUTH 382 - Classical Music Theory (3)
Prerequisite: MUTH 381. Harmonic syntax and structure of the Post-Baroque; includes altered chords, disintegration of tonality and advanced chromatism.

MUTH 385 - Skill Development III (1)
Prerequisite: MUTH 286. Development and application of three and four-part aural and written skills. Includes sightsinging, dictation and keyboard experiences. A companion course to MUTH 381, to be taken by music majors with that course.

MUTH 386 - Skill Development IV (1)
Prerequisite: MUTH 385. A continuing development and application of aural

and written skills. Includes sight-singing and dictation. Keyboard experiences are emphasized. A companion course to MUTH 381, and must be taken by music majors with that course.

MUTH 481 - Contemporary Music Theory (3)
Prerequisite: MUTH 382. Analysis of melodic, rhythmic and harmonic concepts from examples of twentieth century music, both tonal and atonal.

MUTH 483 - Music Composition (3)
Prerequisite or corequisite: MUTH 481. A study of compositional techniques focusing on selected style periods, featuring both large and small models. A creative project is required.

MUTH 490 - Music History-Theory Seminar (2)
Prerequisite or corequisite: MUTH 481, MUHL 377. Analysis from an historical and theoretical perspective. Team taught.

Music Performance: Studio Lessons

Advanced performers are offered individual lessons regardless of major discipline based upon a placement audition. The music department expects students auditioning for private study to demonstrate technical facility, rhythmic precision, acceptable tone quality, accurate intonation, and the ability to read at sight.

A maximum of 12 credits in individual instruction is allowed toward the degree. However, all credits beyond this will be credited over and above the 122 minimum hours required for graduation. Students are cautioned to balance their total program before exceeding the stated limit.

300-level courses constitute one half-hour lesson per week for one credit. 400-level courses constitute one hour lessons or two half-hour lessons per week for two credits, which also implies twice the preparation. Admission to 400-level courses is by permission of the chairperson of the music department.

Private Instruction is with members of the full-time music faculty or with adjunct instructors who are active in teaching and performing.

MUPR 301, 401 - Voice
MUPR 305, 405 - Piano
MUPR 309, 409 - Harp
MUPR 310, 410 - Organ
MUPR 311, 411 - Flute
MUPR 312, 412 - Oboe
MUPR 313, 413 - Clarinet
MUPR 314, 414 - Bassoon
MUPR 315, 415 - Saxophone
MUPR 321, 421 - French Horn
MUPR 322, 422 - Trumpet
MUPR 323, 423 - Trombone/Baritone
MUPR 324, 424 - Tuba
MUPR 325, 425 - Percussion
MUPR 331, 431 - Violin
MUPR 332, 432 - Viola
MUPR 333, 433 - Cello
MUPR 334. 434 - Contrabass
MUPR 335, 435 - Guitar

MUPR 201, 202 - Class Voice I, II (1, 1)
Class instruction through the intermediate performance level, emphasizing the fundamentals of vocal technique through performance. Foundation experience appropriate for continued private voice study. Audition required for placement.

MUPR 203, 204 - Class Voice III, IV (1, 1)
Class instruction for students with demonstrated ability in the vocal idiom. Emphasis on English and Italian diction (MUPR 203) and French and German diction (MUPR 204). May be taken concurrently by students enrolled in private voice. Recommended for teacher certification in the voice/choral area.

MUPR 205, 206, 207, 208 - Class Piano I, II, III, (1, 1, 1)
Class instruction for beginners through the intermediate level. 205 and 206 deal with fundamental performance techniques. The ability to read music is assumed. 207 and 208 emphasize musical expression and preparation for private piano study. An audition is required for placement.

MUPR 211, 212 - Class Woodwind Instruments (1, 1)
Beginning group study in performance techniques of woodwind instruments. The ability to read music is assumed. Recommended for music majors seeking teacher certification in the instrumental area and for students interested in composition. Students having taken MUPR 211 and enrolling in MUPR 212 must study another instrument.

MUPR 221, 222 - Class Brasswind Instruments (1, 1)
Beginning group study in performance techniques of brasswind instruments. The ability to read music is assumed. Recommended for music majors seeking teacher certification in the instrumental area and for students interested in composition. Students having taken MUPR 221 and enrolling in MUPR 222 must study another instrument.

MUPR 225 - Class Percussion (1)
Beginning group study in performance techniques of percussion instruments. Recommended for music majors seeking teaching certification in the instrumental area and for students interested in composition.

MUPR 231, 232 - Class String Instruments (1, 1)
Beginning group study in performance techniques of string instruments. The ability to read music is assumed. Recommended for music majors seeking teacher certification in the instrumental area and for students interested in composition. Students having taken MUPR 231 and enrolling in MUPR 232 must study another instrument.

MUPR 236, 237 - Class Guitar (1, 1)
Beginning group study in performance techniques of the guitar. MUPR 236 and 237 designate beginning and intermediate levels.

MUPR 341 - Chorus (01) Mary Washington Chorus (1)
Students have an opportunity to study and perform selected repertoire representative of all periods of music. (01) designates treble voices. Open by Audition.

MUPR 341 - Chorus (02) Fredericksburg Singers (1)
Students have an opportunity to study and perform selected repertoire representative of all periods of music. (02) designates mixed voices. Open by Audition.

MUPR 342 - Orchestra (1)
Students have an opportunity to study and perform selected repertoire representative of the literature written for orchestra. Open by Audition.

MUPR 344 - Jazz Ensemble (1)
Instrumental performance experience for students with an interest in small group participation and in full jazz band ensemble. Open by audition.

MUPR 347 - Choral Conducting (2)
Prerequisite or corequisite: MUTH 381, 385. Principles and techniques of instrumental conducting, including score reading, score analysis, and program planning.

MUPR 348 - Instrumental Conducting (2)
Prerequisite or corequisite: MUTH 381, 385. Principles and techniques of instrumental conducting, including score reading, score analysis and program planning.

Music Education

MUED 468, 469, 470 are available to undergraduate students as an elective experience beyond the 122 credit hours required for the B.A. degree. Offered only upon demand and during the summer school term, their chief purpose is to enrich the professional backgrounds of teachers in service.

Music Majors seeking public school teaching certification in music should obtain a complete outline of requirements for the "Choral/ Vocal," "Band," or "Strings" certification areas from the Department of Music in their first semester of attendance at the College. A certification manual for music majors is available from the Music Department Chair. Students seeking certification should also discuss their plans with the College's Department of Education.

Music majors seeking teaching certification should see course descriptions for EDUC 317, and 318 in the Department of Education.

MUED 359 - Music for the Elementary Classroom Teacher (3)
The objectives and processes of teaching music in the elementary school with emphasis on music reading, conceptual learning and teacher competencies. For the non-music major.

MUED 468 - Choral Music for the Church (1)
A comprehensive survey of selected choral offerings for the church. Participants sing and discuss choral techniques.

MUED 469 - Choral Music for the School (1)
A comprehensive survey of selected choral offerings for school use. Participants sign and discuss choral techniques.

MUED 470 - The Orchestra and the School (2)
Deals with the problem of maintaining an instrumental ensemble within the school. Includes topics of interest to instrumental music teachers.

PHILOSOPHY

See Department of Classics, Philosophy and Religion

Department of Physics

Bulent I. Atalay, *Chair and Career Adviser*
George King, III, *Career Adviser*

Professors
Bulent I. Atalay (B.S., M.S., Ph.D., Georgetown University; Post-Doctoral study, Oxford University; Institute for Advanced Study, Princeton)
Nikola M. Nikolic (B.S., Belgrade University; M.A., Ph.D., Columbia University)

Associate Professor
George King, III (B.A., Talladega College; M.S., Ph.D., Stanford University; Post-Doctoral study, Lawrence Radiation Laboratory, Berkeley; Director of the Science Institute)

Faculty Interests

Bulent Atalay: Theoretical Physics; Art, and Archaeology
George King, III: Experimental Physics; Computers in Physics, Electronics
Nikola Nikolic: Experimental Physics; Art History, Photography

The Mary Washington physics program presents not only physics itself with its full rigor and consistency, but physics in its relations to the other sciences and to the humanities. The excellence of this program, along with the insatiable global demand for well-trained technical people, has made the physics program a popular major at Mary Washington College. Eight to ten students graduate with bachelor's degrees in physics annually, sometimes picking up mathematics or computer science as a bonus second major.

The graduates go on to careers in government, industry, and teaching; and many continue their education in graduate schools. The Naval Surface Warfare Center, NASA, Boeing, IBM, Columbia University, Georgetown University, Johns Hopkins, the University of Virginia, and Berkeley are among the establishments which have received Mary Washington College physics alumni.

A chapter of the national Society of Physics Students, and its honorary Sigma Pi Sigma, have found enthusiastic participants on campus – sponsoring guest speakers, field trips to national laboratories, and conferences. The Mary Washington College Chapter of SPS has been honored by the national organization for the wealth of activities in which it has been involved.

The courses in the physics curriculum offer a well-rounded view of contemporary physics. A strong core of courses in theoretical physics is augmented by laboratory experience and practical computational techniques. The diversity of the curriculum allows students to pursue careers in industry, government, and teaching, or to undertake graduate study. Physics is a good major program around which one can build a career-focused set of courses from other disciplines, e.g., with mathe-

matics or computer science for work in government or industry or for graduate study; with biology for work in the rapidly expanding field of biophysics; or with geology for geophysical research on energy and mineral resources. Qualified seniors may undertake a research project, which culminates in a thesis. The successful defense of the thesis earns Honors in Physics. A student seeking Honors will register for Individual Study for four credits each semester.

Requirements for the Major

In Major Subject: 32 credits in the following courses: PHYS 105, 106, 211, 321, 322, 331, 332, 384, 411, and 412.
Additional Math Requirements: 6 credits in MATH 223 and 312.

Course Offerings

PHYS 101, 102 - General Physics (4, 4)
An introductory course focused on the fundamentals of physics. Primarily for non-science majors. Emphasis is on building concepts and applying principles to make quantitative measurements. Among the topics covered are: Classical Mechanics, Thermodynamics, Electricity and Magnetism, Optics, and the Rudiments of Modern Physics. Facility with algebra and trigonometry is required. Laboratory. Only in sequence. Credit for only one sequence (PHYS 101, 102, or PHYS 105, 106) will count toward degree requirements.

PHYS 103, 104 - Elementary Astronomy (3, 3)
Historical introduction, description of the solar system, stars, galaxies, and the Universe as a whole, and their properties, together with the rudiments of physics underlying these subjects. A limited laboratory is included.

PHYS 105, 106 - University Physics (4, 4)
Corequisites: MATH 121 for PHYS 105, and MATH 122 for PHYS 106. Primarily for science students. Covers essentially the same topics as PHYS 101, 102, with more mathematical rigor. Laboratory. Only in sequence. Credit for only one sequence (PHYS 101, 102, or PHYS 105, 106) will count toward degree requirements.

PHYS 211 - Modern Physics (3)
Prerequisites: Permission of the instructor, or PHYS 102 or PHYS 106 and MATH 122. Foundations of quantum mechanics, atoms with one electron, multielectron atoms, molecules, solid state physics, the special theory of relativity.

PHYS 312 - Nuclear Physics (3)
Prerequisites: PHYS 101 or 105, and MATH 122. Nuclear structure, static and dynamic properties of the nucleus. Radioactive decay, the Bateman Equations, mass parabolas, transition rates, and the machines of nuclear physics.

PHYS 321, 322 - Classical Mechanics (3, 3)
Prerequisite: PHYS 106. Kinematics and dynamics of mass particles, systems, conservation laws, Lagrange and Hamiltonian methods, Hamilton's equations of motion. Only in sequence.

PHYS 331, 332 - Electricity and Magnetism (3, 3)
Prerequisite: PHYS 106. Maxwell's equations, electromagnetic waves and their properties are covered; time permitting, the special theory of relativity is brought in. Only in sequence.

PHYS 383 - Electronics (3)
Prerequisite: PHYS 106. Basic concepts in modern electronics. Emphasis on DC, AC and digital applications. Lecture and laboratory.

PHYS 384 - Advanced Physics Laboratory (3)
Prerequisite: PHYS 211. Experiments relevant to atomic physics, nuclear physics, physical optics, acoustics, etc.

PHYS 391 - Optics (3)
Prerequisite: PHYS 106. Introduction to geometrical optics and optical instruments, followed by physical optics.

PHYS 401 - Thermodynamics and Statistical Mechanics (3)
Prerequisite: PHYS 106. Temperature, thermodynamic states and variables, the laws of thermodynamics, entropy, thermodynamic potentials, change of phase, and the statistical properties of thermodynamic systems.

PHYS 411, 412 - Quantum Mechanics (3, 3)
Prerequisites: PHYS 211 and MATH 223. Schrödinger's equation, harmonic oscillator, matrix formulation of quantum mechanics, angular momentum and scattering theories, perturbation theory, rudimentary relativistic quantum mechanics. Only in sequence.

PHYS 462 - Advanced Nuclear Physics (3)
Prerequisite: PHYS 312. A research course in theoretical nuclear physics.

PHYS 471 - Selected Topics in Physics (3)
Several topics taught in rotation: solid state physics; particle physics; general relativity; methods of mathematical physics. May be repeated for credit.

PHYS 482 - Physics Seminar (1)
Open to third and fourth year physics majors for credit.

PHYS 491, 492 - Individual Study (3-4)
Open to junior and senior physics majors. Four credits when taken for Honors in Physics.

PHYS 499 - Internship (Credits Variable)
Supervised off-campus experience, developed in consultation with the Department.

Department of Political Science and International Affairs

John M. Kramer, *Chair; Career Adviser,* International Affairs
Richard J. Krickus, *Career Adviser,* Political Science

Distinguished Professor
Lewis P. Fickett, Jr. (A.B., Bowdoin College; L.L.B., M.P.A., Ph.D., Harvard University)

Professors
John M. Kramer (B.A., LaSalle College; M.A., Ph.D., University of Virginia)
Richard J. Krickus (B.A., College of William and Mary; M.A., University of Massachusetts; Ph.D., Georgetown University)

Associate Professor
Victor A. Fingerhut (B.A., M.A., Yale University)

Assistant Professor
Mark J. Rozell (B.A., Eisenhower College; M.A., Ph.D., University of Virginia)

Faculty Interests

Lewis Fickett is a specialist in international relations and the politics of India. He has written The Socialist Parties of India and is a former Ford Foundation Fellow and Fulbright Scholar. John Kramer specializes in Soviet and East European politics. He has published numerous scholarly papers and is a former Research Fellow at Russian Research Center, Harvard University, and a Senior Fellow at the National Defense University. Richard Krickus focuses upon American national security affairs and urban politics. He has written *Pursuing the American Dream* and *The Superpowers in Crisis*. Victor Fingerhut specializes in public opinion and political theory. He is an internationally known political consultant who has conducted polling for numerous candidates at the national, state and local levels. Mark Rozell is a specialist on the American Presidency and Congress. He has written *The Press and the Carter Presidency* and a number of articles in scholarly journals and compendia.

The Department offers majors in both Political Science and International Affairs. The two majors are closely related in that each comprises an important component of the other's discipline. However, each major is also a separate and distinct entity exhibiting its own methodology, disciplinary perspective, and body of knowledge.

Political Science, the study of how various political systems work, offers courses ranging from urban politics and government to international politics. The Department also provides many outlets through which students can gain practical knowledge of the field, including visits to the Virginia State capital and to Washington, D.C., internships in governmental offices, and involvement in major political events, such as the

United Nations' student conference. Political Science is a good background for a career in law, urban planning, teaching, government and private enterprise; it also lends itself to further study in graduate school.

The interdisciplinary major in International Affairs is designed to provide the student with a broad knowledge of the contemporary international system as well as with specific expertise in a given geographic area and/or academic discipline. To this end, the major combines core courses that examine international affairs from a variety of disciplinary perspectives with related courses that permit students to pursue in-depth their particular geographic and/or disciplinary interests.

Career opportunities for the major in International Affairs range from such traditional areas as work with government or private agencies engaged in research on foreign policy or intelligence issues to such new and rapidly expanding areas as employment with multinational corporations or international banking institutions.

Requirements for the Political Science Major

PSCI 101, 102, 201, 301, 302, 321, 441, 442. Twelve additional credits in Political Science not to include PSCI 499.

Requirements for the International Affairs Major

Required Courses: PSCI 321, 322, 356; ECON 382 or 384; HIST 372; GEOG 321.

Additional Major Requirements: 21 credits to be chosen by the student and adviser from approved courses in Economics, French, Geography, German, History, International Affairs, Italian, Political Science, Russian, Spanish.

Language Competence Requirement: option A – at least 6 credits in each of two languages at the intermediate level; option B – at least 6 credits in one language at the advanced level.

Note: The major program grade-point average is calculated only on *Required Courses* and those from the approved list in *Additional Major Requirements.*

Political Science Courses

PSCI 101 – Introduction to Political Science I (3)
Survey of the basic concepts and theories of political science from antiquity to the present, including contemporary analytical techniques.

PSCI 102 – Introduction to Political Science II (3)
Continuation of Political Science 101, with primary emphasis on modern comparative political analysis and international relations.

PSCI 201 – American Government I (3)
Principles of Political Science as applied to American national, state, and local government.

PSCI 202 – American Government II (3)
A study of selected problems in contemporary American politics.

PSCI 301 – The Politics of Western Europe (3)
Prerequisites: PSCI 101, 102. Comparative analysis of the governments of the United Kingdom, France, and West Germany.

PSCI 302 – The Politics of Communist Europe (3)
Prerequisites: PSCI 101, 102. Comparative analysis of the governments of the Soviet Union and Eastern Europe.

PSCI 304 – Contemporary American Politics (3)
In-depth analysis of selected problems in contemporary American politics.

PSCI 311 – Congress and the Political Process (3)
Prerequisites: PSCI 101, 102. Analysis of the contemporary role of Congress in its relation to the Presidency, the federal bureaucracy, and pressure groups.

PSCI 312 – The American Presidency (3)
Prerequisites: PSCI 101, 102. Analysis of the modern American Presidency and its relationship to democratic theory.

PSCI 321 – Theory of International Politics (3)
Prerequisites: PSCI 101, 102. Analysis of contemporary theory of international politics, including evaluation of the United Nations and other international organizations.

PSCI 322 – Problems in International Politics (3)
Prerequisites: PSCI 101, 102. In-depth analysis of major contemporary problems in international politics.

PSCI 332 – Metropolitan Problems (3)
Prerequisites: PSCI 101, 102. Analytical study of the problems of American cities and other areas.

PSCI 334 – Political Parties (3)
Prerequisites: PSCI 101, 102. Structure and function of political parties; conduct of elections; pressure groups.

PSCI 341 – Government Finance (3)
Prerequisites: PSCI 101, 102. Analysis of the appropriate role of government in the allocation of resources.

PSCI 350 – Political Modernization (3)
Prerequisites: PSCI 101, 102. Analysis of the development of political systems, particularly in the Third World.

PSCI 354 – Politics of South and Southeast Asia (3)
Prerequisites: PSCI 101, 102. Study of the political development of India, Pakistan, Thailand, Laos, Kampuchea, and Vietnam.

PSCI 355 – Politics of North Africa and the Middle East (3)
Prerequisites: PSCI 101, 102. Study of the political development of the nations of North Africa and the Middle East.

PSCI 356 – American Foreign Policy (3)
Prerequisites: PSCI 101, 102. Problems facing the United States in its search for national security and international stability.

PSCI 357 – Soviet Foreign Policy (3)
Prerequisites: PSCI 101, 102. Analysis of the foreign policy of the Soviet Union from its inception to the present.

PSCI 360 – Theory and Practice of Revolution (3)
Prerequisites: PSCI 101, 102. Comparative analysis of theories of revolution and case studies of selected revolutions.

PSCI 361 – Problems of Communism (3)
Prerequisites: PSCI 101, 102. Study of the origins, development, and contemporary aspects of world communism.

PSCI 365 – Foreign Policy of the People's Republic of China (3)
Prerequisites: PSCI 101, 102. Survey of the foreign policy of the People's Republic of China from 1949. China's role in fomenting revolutions, Sino-American relations, and the split between the USSR and the People's Republic.

PSCI 422 – American Civil Liberties (3)
Prerequisites: PSCI 101, 102. Intensive analysis of civil liberties in the United States, based primarily upon decisions of the Supreme Court.

PSCI 441 – History of Political Thought I (3)
Prerequisites: PSCI 101, 102. Examination of the contributions of the great political theorists from Plato to Burke.

PSCI 442 – History of Political Thought II (3)
Prerequisites: PSCI 101, 102. Examination of the contributions of modern political philosophers.

PSCI 443 – Modern Political Analysis (3)
Prerequisites: PSCI 101, 102. Study of the theories and application of modern political analysis.

PSCI 471 – Political Science Seminar (3)
Prerequisites: PSCI 101, 102. Intensive reading and group discussion of selected topics in political science.

PSCI 491 – Individual Study in Political Science (3)
Prerequisites: PSCI 101, 102. Directed individual research on approved problems in political science.

PSCI 499 – Internship
Prerequisites: PSCI 101, 102. Supervised off-campus experience, developed in consultation with the Department. No credit towards the major.

International Affairs Courses

INAF 471 – International Affairs Seminar (3)

INAF 491 – Individual Study in International Affairs (3)

INAF 499 – Internship
Up to 6 credits can be applied to fulfilling major requirements.

Department of Psychology

J. Christopher Bill, *Chair*
Thomas Moeller, *Career Adviser*
Roy Smith, *Internship Adviser*

Professors
J. Christopher Bill (B.S., College of the Holy Cross; M.S., University of Bridgeport; Ph.D., Dartmouth College)
B. David MacEwen (B.A., LaVerna College; M.A., University of California at Los Angeles; Ph.D., Arizona State University)
Thomas G. Moeller (B.A., Marquette University; M.A., Ph.D., University of Iowa)
Roy H. Smith (B.S., University of Tennessee; Ph.D., University of Pennsylvania)

Associate Professors
Steve R. Hampton (B.S., University of Houston; M.A., Stephen F. Austin State University; Ph.D., Northern Illinois University)
Denis Nissim-Sabat (B.A., Case Western Reserve University; Ph.D., Temple University)

Assistant Professors
Carole B. Corcoran (B.A., Wittenberg University; M.A., Ph.D., Miami University)
Debra C. Steckler (B.A., Butler University; M.S., Ph.D., University of Georgia)

Lecturer
Bernard Chirico (B.S., M.S., Ph.D., Virginia Commonwealth University)

Faculty Interests

J. Christopher Bill: Academic – statistics, computer applications, sensation and perception; psychology and law, writing intensive program; Personal – hiking, age-group swimming program, birds, music.

Bernard Chirico: Academic – clinical, psychotherapy, hypnosis, behavioral medicine; Personal – saltwater fish and invertebrates, photography, cooking.

Carole B. Corcoran: Academic – social psychology, stereotyping and prejudice, psychology of women, sexual assault: recovery experiences, quality of services, education and prevention; Personal – films, dancing, ethnic foods (cooking).

Steve R. Hampton: Academic – memory, sexual motivation, effects of fear; Personal – fishing and golf.

B. David MacEwen: Academic – research involving problem solving of animals, as well as the relationship between cognition in animals and humans; Personal – backpacking and mountain hiking.

Thomas G. Moeller: Academic – normal and abnormal psychological development of children; health psychology; math anxiety; Personal – community affairs, coach of coed softball teams.

Denis Nissim-Sabat: Academic – psychology and public policy, soviet psychology, clinical; Personal – playing basketball, watching NCAA basketball and NHL hockey; gourmet cooking and eating.

Roy H. Smith: Academic – brain structure and function, domestication and evolution, language and communication, substance abuse problems; Personal – drug education, gardening, music.

Debra C. Steckler: Academic – developmental psychology, and the psychology of violence; Personal – music, exercise, and golf.

The principal objective of the Department is to provide sound course work in psychology, the study of behavior. This coverage includes both traditional areas and more recent trends and theoretical developments in the discipline.

In addition to being exposed to the major areas of psychology, students also receive extensive training in methodology and statistics. The study of psychology at the College provides an excellent means for developing critical thinking, writing and oral communication. It is important to note, however, that the psychology major is a liberal arts program rather than professional training, and, as such, will not make a graduating psychology major a "psychologist."

The department's facilities in Chandler Hall include a microcomputer laboratory; an animal laboratory complete with colony, surgery, and research computer; a mechanical shop that supports research projects; a suite of rooms suitable for conducting experiments with human subjects; facilities and materials for use in psychological testing; and video taping equipment.

The Department offers a B.S. degree. All students are exposed to the variety of subject areas that define the field of psychology, and all students are given the opportunity for hands-on, empirical work in the discipline. Many students do a year-long research project under the direction of an individual faculty member. Such research is typically done within the context of one of several research teams active in the Department. Students are able to choose course sequences that prepare them for either graduate work in the social sciences or employment immediately after graduation.

The Department offers a number of internships with local service agencies. Students also may develop their own internships under the direction of departmental faculty members.

Career options available to majors include: teaching at the primary and secondary level (with appropriate certification), social work, probation and parole, substance abuse counseling, and technical or counseling opportunities in a variety of mental health settings. Students interested in pursuing psychology as a career find the curriculum to be an excellent preparation for graduate study.

The department sponsors a chapter of Psi Chi, the national honorary society in psychology. Membership is limited to academically successful psychology majors.

Each year the department awards several Minnie Rob Phaup Memorial Scholarships to junior and senior psychology majors. The amount of these scholarships and the number of them vary from year to year.

Psi Chi and the department annually sponsor a Student Research Symposium at which students present, in convention format, the various research projects that they have done during the year. Awards are given for the best class project and the best research team project. Students are encouraged to be members of the Virginia Psychological Association, and many of them present their research at meetings of the Association.

Each year the Department presents a graduating senior with the Outstanding Senior Psychology Major Award. This award, established by the local Psi Chi chapter in 1981, is given on the basis of a variety of academic and professional criteria.

Requirements for the Major

36 credits in Psychology courses, including 101, 102, 261, 421, 361 or 362, 470 or 491 (4 credits), and at least one course from each of the following groupings: (1) 320, 331, 332, 333, 335; (2) 301, 311, 315, 342; (3) 307, 353, 380, 385, 392, 394; (4) 372, 373, 374, 381.

Course Offerings

PSYC 101 and 102 must be taken in sequence and are prerequisites for all other Psychology courses.

PSYC 101, 102 - General Psychology (3, 3)
Fundamental principles of human behavior; biological antecedents; motivation; perception; learning; individual differences, life-span; personality; intelligence; social; abnormal; clinical. Only in sequence.

PSYC 261 - Statistics and Research Methods (4)
Prerequisites: PSYC 101, 102. An introduction to the use of descriptive and inferential statistical methods, including basic ANOVA. Laboratory experience with empirical data collection, computer analysis, and report writing.

PSYC 301 - Social Psychology (3)
Prerequisites: PSYC 101, 102. Individual behavior in social context; socialization; attitudes; social perception; attribution; and small groups.

PSYC 307 - Computer Applications in the Social Sciences (3)
Prerequisite: PSYC 361 or 362. BASIC programming; statistical packages and applications; simulation; microcomputer hardware and software and general use of the microcomputer as a research tool.

PSYC 311 - Abnormal Psychology (3)
Prerequisites: PSYC 101, 102. Examines the various models of psychotherapy, the history of abnormal psychology, the various psychological disorders and their causes, and drug therapies.

PSYC 315 - Foundations of Clinical Psychology (3)
Prerequisites: PSYC 101, 102. Examines professional issues in clinical psychology, theories and practices of the major schools of psychotherapy, effectiveness of psychotherapy, and community psychology and primary prevention.

PSYC 320 - Psychology of Exceptional Children and Youth (3)
Prerequisites: PSYC 101, 102. The study of deviations in physical, intellectual, and emotional development through adolescence. Consideration of relevant theories, issues, empirical findings, and methods of prevention and treatment.

PSYC 321 - Practicum in Exceptional Child Psychology (1)
Prerequisites: PSYC 101, 102; prerequisite or corequisite: PSYC 320. Supervised experience working with exceptional children in local schools and agencies.

PSYC 331 - Developmental Psychology: The Infant and Child (3)
Prerequisites: PSYC 101, 102. Development from conception through childhood. Consideration of developmental processes, theories, issues, and relevant research.

PSYC 332 - Developmental Psychology: The Adolescent and Adult (3)
Prerequisites: PSYC 101, 102. Theories of, and research on, personality, social, physical, and intellectual characteristics from adolescence through middle adulthood.

PSYC 333 - Psychology of Aging (3)
Prerequisites: PSYC 101, 102. Theories and research in aging, changes in personality, intellectual abilities, cognitive capacities, and physical capabilities from later adulthood to death.

PSYC 335 - Applied Child Psychology (3)
Prerequisites: PSYC 101, 102, and 320 or 331. Examines assessment and therapy techniques as applied to child-clients in schools and clinical settings.

PSYC 342 - Psychology of Personality (3)
Prerequisites: PSYC 101, 102. Personality structure, dynamics, development, and methods of research.

PSYC 353 - Fundamentals of Learning and Motivation (3)
Prerequisites: PSYC 101, 102. A survey of empirical findings and theoretical issues in the analysis of learning and motivation and their interaction in the determination of behavior.

PSYC 361 - Inferential Statistics and Research Methods (4)
Prerequisite: PSYC 101, 102, 261. In-depth coverage of data analysis techniques and inferential tests. Includes data collection, report writing, and instruction in computerized data analysis.

PSYC 362 - Applied Methods (4)
Prerequisites: PSYC 101, 102, 261. An overview of methods common to applied psychological settings. Topics include: sampling, direct and indirect measurement techniques, survey construction and use, and analysis and presentation of data.

PSYC 372 - Sensation and Perception (4)
Prerequisites: PSYC 101, 102, and 361 or 362. A laboratory approach to the study of perceptual and sensory systems, with an emphasis on vision and hearing, as well as on psychophysical methods.

PSYC 373 - Cognitive Psychology (4)
Prerequisites: PSYC 101, 102, and 361 or 362. Methodology, research, and theory in the study of human memory, language, and thinking.

PSYC 374 - Physiological Psychology (4)
Prerequisites: PSYC 101, 102, and 361 or 362. Critical survey of physiological correlates of psychological events with an emphasis on the neurophysiological bases of behavior and the methods of psychobiological investigation.

PSYC 380 - Psychological Tests and Measurements (4)
Prerequisites: PSYC 101, 102, and 361 or 362. Examines the theory of test construction and the use and misuse of psychological tests. Laboratory experience includes test administration, scoring, and interpretation as well as report writing of test results.

PSYC 381 - Applied Behavioral Analysis (4)
Prerequisites: PSYC 101, 102, and 361 or 362. Study and experience with the principles of operant conditioning as applied to the modification of human and animal behavior.

PSYC 385 - Industrial-Organizational Psychology (3)
Prerequisites: PSYC 101, 102, and PSYC 261 or Math 200. An application of psychological principles and research to human problems in industry, business, and government. Topics include: personnel selection and placement, job and work environments, worker motivation, job satisfaction, and the organizational and social context of human work.

PSYC 392 - Behavior Genetics (3)
Prerequisites: PSYC 101, 102, and one year of biology. Principles of genetic transmission, gene action, population structure, and evolutionary theory applied to problems in animal and human behavior.

PSYC 394 - Psychopharmacology (3)
Prerequisites: PSYC 101, 102, and one year of biology or chemistry. Introduction to principles of drug action in the body, drug effects on behavior, and the social psychology of drug use.

PSYC 421 - History of Psychology (3)
Prerequisites: PSYC 101, 102. Survey of historical antecedents of modern psychology.

PSYC 470 - Selected Topics in Psychology (3)
Prerequisites: PSYC 101, 102. A study of enduring and/or contemporary issues in psychology. Different topics offered during different semesters. Course may be repeated with different topics.

PSYC 491 - Individual Research (variable; maximum of 3 per semester)
Prerequisite: PSYC 101, 102, and permission of departmental staff member. Empirical investigation and/or library research.

PSYC 499 - Internship (1-6 credits)
Prerequisites: sixty hours of junior standing; twelve hours in psychology beyond Psychology 101 and 102. Specific courses may be required for specific internships. Supervised off-campus experience.

RUSSIAN

See Department of Modern Foreign Languages

Department of Sociology and Anthropology

Bill Hanson, *Chair*
Margaret Huber, *Coordinator and Career Adviser - Anthropology Option*
Charles A. Sletten, *Career Adviser - Sociology*

Professors
Charles A. Sletten (B.A., University of Virginia; A.M., Ph.D., Harvard University)
Margaret Huber (B.A., Bryn Mawr College; B.Litt, D.Phil., Oxford University)

Associate Professors
Joan T. Olson (B.A., Wheaton College; M.A., Michigan State University; Ph.D., Northwestern University)
Bill Hanson (B.A., Marietta College; M.A., Ph.D., Brown University)
Timothy Crippen (A.B., Indiana University; M.A., Ph.D., University of Texas at Austin)

Charles Sletten has teaching interests in sociological theory, American society, and special readings courses. His research interests focus on problems in higher education and the nature of social relationships. Joan Olson has teaching interests in social psychology, the family, and criminology, while pursuing research on the social psychology of distributive justice. Bill Hanson teaches courses in social stratification, medical sociology, urban affairs and race/ethnic relations. His research interests focus on drug use, college teaching and interpersonal power relationships. Timothy Crippen teaches courses on population trends, social change, the sociology of religion, and political sociology; and his current research interests include the analysis of religion and social stratification in evolutionary perspective. Margaret Huber teaches courses in physical anthropology, ethnology, and symbolic and cultural anthropology; and studies gender, symbolic systems, and ethnohistory; native North America, Oceania, and modern American culture.

Sociologists and anthropologists study the variety of human societies and social forms. Sociology tends to concentrate on modern societies of European origin, while anthropology concentrates on non-Western societies, and studies in addition the physical and cultural origins of humanity.

The Department of Sociology and Anthropology offers a B.A. degree in sociology. Students may elect to take either the sociology major program or the anthropology concentration. Each possesses its own distinctive subject matter and course requirements.

Sociology

The major program in sociology provides a strong grounding in the study of the development of sociological theory and methods of research, as well as in substantive areas of social life in the contemporary world. The area courses focus on the structure and dynamics of social life and relationships, and on timely contemporary issues in areas such as the family, sex roles, religion, criminology, occupations and professions, juvenile delinquency, aging, race and ethnic relations, urban communities, health, and population studies. Special readings and individual study and research offer students the possibility of working under faculty guidance in an area of special and mutual interest. Supervised internships are available in community agencies and organizations.

As a body of systematic knowledge based on the scientific investigation of human social interaction, sociology can provide students with insights into the nature of culture, social structure, and social dynamics which are relevant to personal and intellectual development and social awareness. This program of study is designed to provide sociology majors with the necessary foundation for a variety of career goals as well as graduate work in sociology. The program also provides majors and non-majors with a solid background for a career in government, elementary and secondary teaching, social services, public policy formulation, public administration, urban planning, and research in public and private agencies including private industry and the allied health professions.

Senior sociology majors with an outstanding academic record may earn Departmental honors by (1) having attained a cumulative GPA of 2.75 and a GPA in sociology or anthropology courses of 3.25, and (2) by successfully completing an honor's paper in sociology or anthropology.

In addition, the Department of Sociology and Anthropology has its own honorary, Sigma Omega Chi. Membership is based on each student's academic performance which must meet the standards set by the Department.

Finally, each year Departmental faculty select one student to receive the Cora Lee Kaufmann Scholarship Award. This scholarship provides a monetary award and is offered to a rising junior or senior who is a declared major in the Department with a cumulative GPA of at least 3.0 and who has the highest GPA in all courses (excluding internships) designated as sociology or anthropology courses.

Requirements for the Sociology Major

In Major Subject: SOCG 100, 200, and ANTH 101; 24 credits in sociology courses at the 300 and 400 level. Up to 6 hours in anthropology courses above the 100 level may be substituted for sociology courses.

Additional Major Requirements: 6 credits in approved courses in anthropology, psychology, history, political science, economics, linguistics, philosophy, statistics and computer science.

Recommended: Majors are encouraged to work closely with their departmental adviser to develop an integrated and balanced program of study.

Sociology Course Offerings

SOCG 100 - Social Problems (3)
Methods and perspectives for analyzing social problems such as economic inequality, race relations, and crime. Emphasis varies by instructor.

SOCG 200 - Principles of Sociology (3)
Concepts, methods, and theories for the study of the social organization of human behavior. Emphasis varies by instructor.

SOCG 300 - Sociology of the Aging (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Theories of aging, societal attitudes, demographic and status changes, family relationships, and institutionalization of aged persons are discussed.

SOCG 304 - Social Stratification (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Analysis of inequality in society. Nature and consequences of social stratification and power in modern society.

SOCG 311 - Demography and Human Ecology (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Basic principles of social and formal demography. Relationship of social, economic, and psychological factors on demographic processes.

SOCG 312 - Comparative Community (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Cross cultural comparisons of the nature and development of communities, emphasizing the role of modernization, urbanization, and political decision-making on the social structure and dynamics of modern communities.

SOCG 313 - Urban Sociology (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Common problems of city living, cultural, social and ecological factors in growth of cities and their influence upon social organization and everyday social relationships in urban areas.

SOCG 314 - Population Trends (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Considers the nature of global and national demographic trends and their sociological correlates. Special emphasis is given to topics such as economic development, migration patterns, and resource utilization.

SOCG 315 - Sex Roles and Society (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Sociological study of gender differentiation in American society, with an emphasis on major social institutions and social change.

SOCG 331 - The Family (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. American families: changing patterns in marriage, divorce, and child rearing; social class and ethnic variation; and emerging alternative life-styles.

SOCG 332, 333 - Introduction to Social Welfare (3, 3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Social welfare concerns, historical background, philosophies, values, goals, and issues; social welfare as a social institution; social work as a profession; methods, policies, and consequences of social action or inaction.

SOCG 334 - Medical Sociology (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. The relationship of disease and health to social structure and culture. Organizational and role analysis of the medical care industry, various allied health professions and alternative approaches to coping with health and illness.

SOCG 341 - American Society (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Survey of contemporary society; modifications of the liberal progressive ideology and organization; changing male and female roles; growth of bureaucracy; strains in contemporary American society.

SOCG 342 - Occupations and Social Structure (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Treatment of major occupational groups; special emphasis on professions and executive roles, including relationships with other aspects of society.

SOCG 351 - Juvenile Delinquency (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Sociological analysis of the nature, extent, causes, impact and treatment of juvenile delinquency.

SOCG 352 - Criminology (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Causal theories and descriptive research on adult crime; survey of the American criminal justice system.

SOCG 362 - Methods of Social Research (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Study design, observation, interviewing, questionnaire construction and administration, survey research and analysis, and other topics.

SOCG 363 - Sociological Research: Data Analysis (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Analysis of sample survey data with special emphasis on cross-classification, correlation, and regression techniques.

SOCG 402 - Sociology of Human Development (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Examination of social influences on human development, including family, schools, mass media and social stratification.

SOCG 403 - Individual and Society (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Impact of social structure and culture on individuals; symbolic interactionism as a perspective for understanding the relationship between individuals and society.

SOCG 421 - Ethnic and Racial Minority Relations (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Analysis of the relationship between ethnic and racial groups in America and their relationship to the dominant white majority. Sociological examinations of concepts such as prejudice, discrimination, segregation, inter-group conflict, power, assimilation, pluralism and others.

SOCG 422 - Sociology of Religion (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Sociological approaches to religious behavior are considered in terms of the social correlates of religious feeling and of the significance of religion in socio-historical development.

SOCG 432 - Political Sociology (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Theories and research regarding the social structural and cultural bases of political authority in human societies are considered. Emphasis is given to the polity, power, and political action as integral aspects of socio-cultural organization and dynamics.

SOCG 442 - Social Change (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Considers alternative approaches to the study of evolution and revolution in various spheres of human social activity including politics, economics, religion, and ideology.

SOCG 471 - History of Social Theory (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Presentation and analysis of major forms and themes of social and early sociological theory from Greece to the 20th century.

SOCG 472 - Contemporary Sociological Theories (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Consideration of major sociological theorists of the 20th century including Durkheim, Weber, Pareto, Mannheim, Sorokin, and Parsons.

SOCG 488 - Selected Topics (3)
Prerequisite: SOCG 100 or 200 or permission of the instructor. Usually one set of readings on major concepts or points of view in contemporary sociology with an emphasis on discussion.

SOCG 489 - Special Readings (3)
Prerequisite: Permission of the instructor. One or several sets of readings and discussions from a sociological point of view. Student interest is important in selecting the topics.

SOCG 491, 492 - Individual Study and Research (3, 3)
Prerequisite: Permission of the instructor. Available to qualified students; reading and research; project or paper with guidance of a faculty member.

SOCG 499 - Internship
Prerequisite: SOCG 100, 200, 6 upper-level credit hours, and permission of the instructor. Supervised off-campus experience, developed in consultation with departmental faculty. Credits variable; none may be included in the major.

Anthropology Concentration

Anthropology studies humanity biologically and culturally, considering the relationship between man and nature, and the varieties of human culture and society, past and present. The courses in anthropology approach these questions from the perspectives of physical anthropology, archaeology, and ethnology. In addition the courses are intended to give the student an appreciation of the diversity of human cultural achievement.

Anthropology provides an excellent background for a number of careers such as museum work, journalism, advertising and market research, personnel management, contract archaeology, primary or secondary education, government agency work, and third-world development; as well as for graduate work in anthropology or related fields.

Students interested in an anthropological curriculum may select the Anthropology concentration in the sociology major. The anthropology

concentration will use anthropology courses as the core of the curriculum (21 hours). The remainder of credit hours (18) necessary to fulfill the major come from sociology (9 hours) and at least two related disciplines (9 hours). The total number of hours is 39.

Requirements for the Anthropology Concentration

In Anthropology and Sociology: ANTH 101, 102, plus 15 hours of 200-, 300- and 400-level anthropology courses including at least one course from each level; and nine hours of sociology: SOCG 200 (Principles of Sociology) and six hours of upper-level sociology from among the courses approved for the option. Six hours of upper-level sociology courses chosen from among those approved for the concentration may be substituted for anthropology courses. A student who does this may not, however, also count those courses towards the 9 hours from other disciplines (courses listed below) required to complete the option.

In Other Disciplines: 9 hours from at least two disciplines. Approved courses are:

ARTH 310:	Greek Art
ARTH 311:	Roman Art
BIOL 204:	Nutrition
BIOL 252:	General Ecology
CLAS 205:	Mythology
CLAS 206:	Greek and Roman Religion
CLAS 380:	Archaeology of the Greek and Roman World
GEOG 201:	Introduction to Cultural Geography
GEOG 275:	Human Environment: Perception and Utilization
GEOG 301:	Geography of Middle America and the Caribbean
GEOG 302:	Geography of South America
GEOG 304:	Geography of the Middle East and North Africa
GEOG 305:	Geography of Sub-Saharan Africa
GEOG 306:	Geography of South and Southeast Asia
GEOG 307:	Geography of East and Central Asia
HISP 307:	American Archaeology
HISP 321, 322:	American Forms and Values
HISP 465:	Field Methods in Archaeology
HIST 309:	The American Indian
HIST 364:	History of Japan
HIST 365, 366:	History of China
LING 201:	Sociolinguistics and Anthropological Linguistics
PSCI 354:	Politics of South and Southeast Asia
PSCI 355:	Politics of North Africa and the Middle East
RELG 201:	Judaism
RELG 204:	Archaeology and the Bible
RELG 205:	Old Testament
RELG 217:	Primitive Religions
RELG 231:	Special Studies in Religion (by permission)
RELG 281:	The Religions of India
RELG 331:	Special Studies in Religion (by permission)
SOCG 304:	Social Stratification
SOCG 312:	Comparative Community
SOCG 314:	Population Trends
SOCG 315:	Sex Roles and Society

SOCG 403:	Individual and Society
SOCG 421:	Ethnic and Racial Minority Relations
SOCG 422:	Sociology of Religion
SOCG 442:	Social Change
SOCG 471:	History of Social Theory

Anthropology Course Offerings

ANTH 101 - Introduction to Cultural and Social Anthropology (3)
Introduces the student to non-Western cultures, and examines fundamentals such as ritual, myth, exchange, production, law, kinship, and marriage within those cultures.

ANTH 102 - Introduction to Physical Anthropology and Archaeology (3)
Physical: primatology, genetics, human evolution, and human varieties. Archaeology: objectives and techniques; cultural evolution; ancient civilizations of the Old and New Worlds.

ANTH 201 - Ethnography of North American Indians (3)
Various Indian cultures from the Arctic, Sub-Arctic, Northwest Coast, Southwest, Plains, and Eastern North America; Meso-American cultures and influences; related theoretical problems.

ANTH 202 - Ethnography of South Pacific Peoples (3)
Societies and cultures from the South Pacific, including Melanesia and New Guinea, Micronesia, and Polynesia; subsistence, social organization, exchange, ritual and symbolism, gender, modern development.

ANTH 301 - History of Culture Theory (3)
Prerequisite: ANTH 101 or permission of the instructor. Examination of theories of culture from the beginnings of anthropological thought until the present; Morgan, Tylor, Boas, Kroeber, Durkheim, Mauss, Levi-Strauss, etc.

ANTH 312 - Women in Anthropology (3)
Prerequisite: ANTH 101 or permission of the instructor. The anthropological approach to gender: cultural definition of gender; women as participants in culture; "male bias" in anthropology and its consequences.

ANTH 322 - Symbolic Anthropology (3)
Prerequisite: ANTH 101 or permission of the instructor. The interpretation of cultural symbols as found in rituals, myths, and everyday life, in both Western and non-Western cultures.

ANTH 471, 472 - Special Topics in Anthropology (3, 3)
Recommended: ANTH 101 and one intermediate anthropology course. Seminar style course; one relatively specialized topic with comprehensive readings, choice determined by both student and instructor interests.

ANTH 491, 492 - Individual Study and Research
Prerequisite: Permission of the instructor. Individual work under the guidance of the instructor. Credits variable.

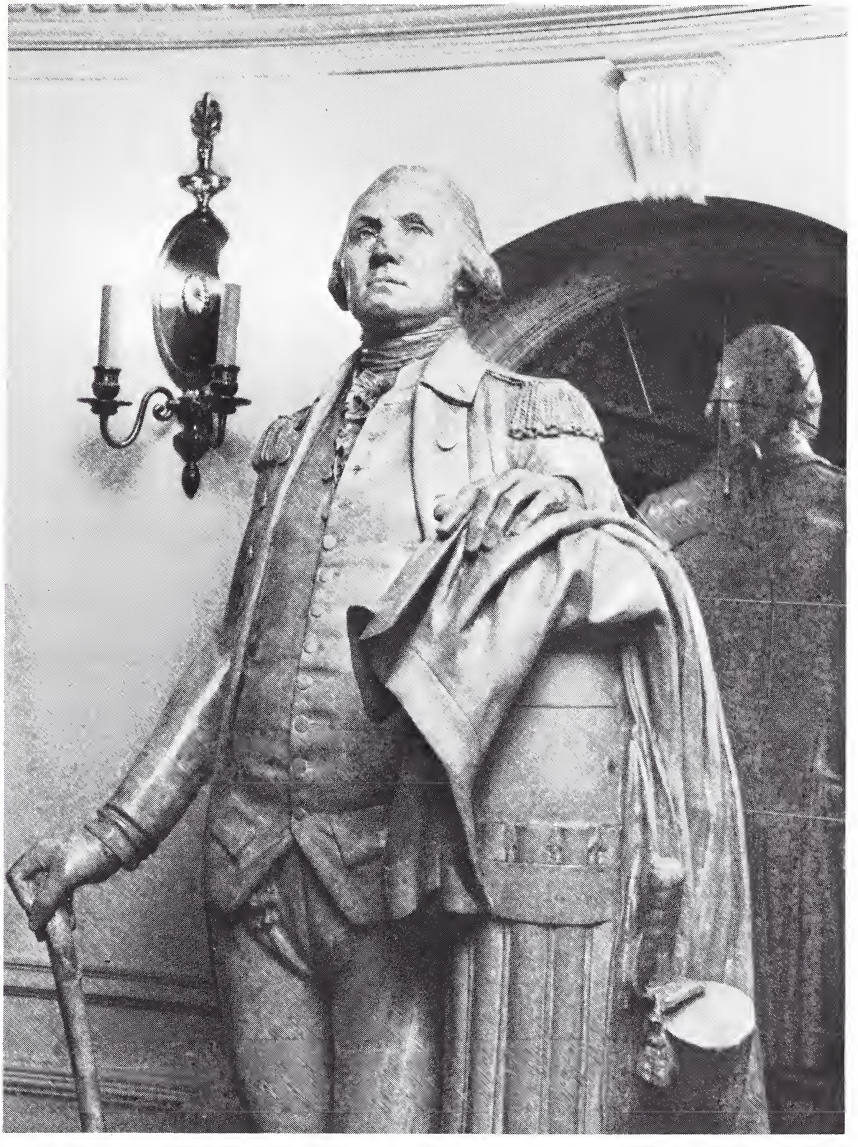
ANTH 499 - Internship
Prerequisite: Permission of the instructor. Supervised off-campus experience, developed in consultation with the instructor. Credits variable; up to 6 credits may be counted in an anthropology concentration.

SPANISH

See Department of Modern Foreign Languages

SPEECH

See Department of English, Linguistics, and Speech



DIRECTORY

★★★★★

The Corporation

The Rector and Visitors of Mary Washington College

General Leonard F. Chapman, Jr. ..... Alexandria, Virginia

Mrs. Kathleen Shepherd Mehfoud ('70) ..... Richmond, Virginia

Dr. Edith Sheppard Ott ('59) ..... Richmond, Virginia

Mrs. Gwendolyn A. Cumming ('52) ..... Hampton, Virginia

Mrs. Virginia Lewis Dalton ('40) ..... Richmond, Virginia

Mrs. Kathleen Mayer Rugh ('78) ..... McLean, Virginia

The Reverend Lawrence A. Davies ..... Fredericksburg, Virginia

Mrs. Rita Morgan Stone ('52) ..... Alexandria, Virginia

Mr. F. N. Hofer ..... McLean, Virginia

Mr. Thomas H. Thorpe ..... Catlett, Virginia

Mr. Bennett C. Whitlock ..... Annandale, Virginia

Mrs. Alice Andrews Jepson ('64) ..... Barrington Hills, Illinois

Office of the President

President
William M. Anderson, Jr.
B.S., Virginia Commonwealth University; M.P.A., West Virginia College of Graduate Studies; Ed.D., Virginia Polytechnic Institute and State University

Executive Secretary Senior and Clerk to the Board of Visitors
Vickie F. Campbell

Executive Secretary
Theresa Smith

Executive Assistant to the President
H. Conrad Warlick
B.A., Wake Forest College; M.A., University of North Carolina; Ed.D., University of Virginia

Special Assistant to the President and AAEEO Officer
Brenda J. King
B.A., Talladega College; M.B.A., California State University; Advanced Graduate Certificate, Western Connecticut State University

Assistant Vice-President for Management Audit and Analysis
Marjorie M. Poyck
B.S., Mary Washington College

Office of the Executive Vice-President

Executive Vice-President
A. Ray Merchent
B.A., Emory and Henry College; M.Ed., Ed.D., University of Virginia

Executive Secretary
Brenda Hudnall

Assistant Vice-President for Personnel and Employment Services
Shelli Wallis
B.A., Bucknell University; J.D., T. C. Williams School of Law

Assistant Director of Personnel
Sherry C. Morgan

Recruitment Coordinator
Vicki W. Parchment

Assistant Vice-President for Administrative Information Systems
Carol H. Martin
A. A., University of North Carolina – Charlotte

Chief of College Police
Charles W. Jones

Post Office Supervisor
Grenville H. Barker

Office of the Vice-President for Academic Affairs and Dean

Vice-President for Academic Affairs and Dean
Philip L. Hall
A.B., College of Wooster; S.M., Ph.D., University of Chicago

Executive Secretary
Lucy Olson

Associate Vice-President for Academic Affairs
Roy B. Weinstock
B.A., Brooklyn College; M.A., Hollins College; Ph.D., Syracuse University

Senior Student Records Clerk
Nancy O. Carter

Administrative Assistant
Mary I. Kemp
B.A., Millsaps College

Associate Dean for Academic Services and Outcomes Assessment
Edward Piper
A.B., College of Wooster; M.A., Ph.D., University of Chicago

Director of Career Planning and Placement and Director of Internship Programs
Renée Everingham
B.A.,Virginia Polytechnic Institute and State University; M.Ed., George Mason University

Career Counselor
Judy Cochrane
B.S., M.S., Northern Illinois University

Assistant Dean for Minority Student Services
Arthur L. Brooks
B.A., Hiram College; M.A., Cleveland State University

Acting Director of Academic Advising
Sallie Washington
A.S., Germanna Community College; B.A., Mary Washington College; M.Ed., Virginia State University

Associate Dean for Graduate and Continuing Education
Mary W. Pinschmidt
A.B., Western Maryland College; A.M., Duke University; Ph.D., Medical College of Virginia

Administrative Assistant
Lucretia H. Oesterheld

Director of Academic Computing
William R. Pope
B.S., M.A., Middle Tennessee State University; Ph.D., Virginia Commonwealth University

Director of Media Services
Allen Brown
B.S., Auburn University

Director of the Audio-Visual Center
Kathleen J. Saville
B.S., M.Ed., James Madison University

Office of the Vice-President for Admissions and Financial Aid

Vice-President for Admissions and Financial Aid
Martin A. Wilder, Jr.
B.A., M.Ed., Ed.D., University of Virginia

Executive Secretary
Anne G. Pitts

Associate Dean for Financial Aid
Robert U. MacDonald
B.A., Carson-Newman College; M.S., Madison College

Assistant Dean of Admissions and Financial Aid
Debra J. Harber
B.S., Indiana–Purdue University at Indianapolis

Associate Dean for Admissions
Jenifer L. Blair
B.A., Mary Washington College; M.Ed., University of Virginia

Assistant Dean of Admissions and Financial Aid
Abas M. Adenan
B.A., Mary Washington College

Assistant Dean of Admissions and Financial Aid
Kristina Carnegie
B.A., Mary Washington College

Assistant Dean of Admissions and Financial Aid
Rita L. Richardson
B.A., M.A., Virginia Polytechnic Institute and State University

Office of the Vice-President for Business and Finance

Vice-President for Business and Finance
Richard L. Miller
B.S., M.B.A., The American University

Executive Secretary
Gloria S. Day

Assistant Vice-President for Business and Finance
C. Frank Mason
B.S., Virginia Polytechnic Institute and State University; M.B.A., Mary Washington College

Director of the Physical Plant
Robert G. Andrews

Director of Auxiliary Services
Carolyn S. Taylor
B.A., University of North Carolina; M.S., Virginia Commonwealth University

Office of the Vice-President for Student Affairs and Dean of Students

Vice-President for Student Affairs and Dean of Students
Joanne G. Beck
A.B., Randolph-Macon Women's College; Ph.D., Medical College of Virginia

Administrative Assistant
Claire Talley Booker

Assistant Dean for Residence Life
Peter Lefferts
B.A., Westminster College; M.A., Bowling Green State University; doctoral candidate, Loyola University

Administrative Assistant
Bette L. Luttrell

Director of the Counseling Center
Jerry N. Downing
B.A., Oklahoma University; Ph.D., Duke University

Administrative Assistant
Sherry Tucker

College Physician
Ilma M. Overman, M.D.
B.S., Mary Washington College; M.D., Medical College of Virginia

Associate Physician
Raymond Jones, M.D.

Associate Physician
Louis B. Massad, M. D.

Head Nurse
Nancy H. Yates, R. N.
R.N., Johnston-Willis Hospital

Library

Library Director
LeRoy S. Strohl, III
B.A., University of Pennsylvania; M.A., Hanover College; M.S.L.S., University of Kentucky

Assistant Library Director and Systems Librarian
Mark G. R. McManus
B.S., M.L.S., University of Tennessee; M.A., Auburn University

Cataloger
Charles D. Balthis
B.A., Randolph-Macon College; M.S.L.S., Catholic University of America

Instructional Services and Reference Librarian
James E. Bales
B.A., Illinois College; M.S.L.S., University of Illinois

Director of Instruction and Access Services
Jeanne M. Drewes
B.A., M.A.L.S., University of Missouri

Director of Collection Development and Management Services
John Philip Mulvaney
B.A., St. John's University; M.A., University of Toronto; M.L.S., Rutgers University; Ph.D. University of Pittsburgh

Special Collections Librarian
Brenda D. Sloan
B.S.C., North Carolina Central University: M.S.L.S. Atlanta University

Office of the Vice-President for College Relations

Vice-President for College Relations
Michael B. Dowdy
B.A., University of Richmond; M.B.A., Mary Washington College

Assistant Vice-President for Alumni Programs and Annual Giving
Barbara S. Burton
B.A., Mary Washington College

Director of Alumni Programs
Melisa A. Casacuberta
A.A., Ferrum College; B.A., Mary Washington College

Director of Special Gifts
Deal Tomkins
B.A., Randolph-Macon College

Director of Publications
Paulette S. Watson
B.A., Notre Dame College; M.A., University of Kansas

Director of Printing Services
Douglas A. Cherry

Director of Public Information
Ronald E. Singleton
A.A., Ferrum College; B.A., College of William and Mary; M.S., Shippensburg University

Emeriti

President Emeritus

Grellet C. Simpson, B.A., M.A., Ph.D., L.L.D., Litt.D., L.H.D.
President Emeritus and Professor Emeritus of English
B.A., Randolph-Macon College; M.A., Ph.D., University of Virginia; L.L.D., Randolph-Macon College; Litt.D., Flagler College; L.H.D., Mary Washington College

Deans Emeriti

Edward Alvey, Jr., B.A., M.A., Ph.D., L.H.D.
Dean Emeritus and Professor Emeritus of Education
B.A., M.A., Ph.D., University of Virginia; L.H.D., Mary Washington College

James H. Croushore, B.A., M.A., Ph.D.
Dean Emeritus and Professor Emeritus of English
B.A., M.A., Lehigh University; Ph.D., Yale University

Reginald W. Whidden, B.A., M.A., Ph.D.
Dean Emeritus and Professor Emeritus of English
B.A., M.A., McMaster University; Ph.D., Yale University

Faculty Emeriti

Margaret E. Arnold, B.A., M.A.
Associate Professor Emerita of Health, Physical Education, and Recreation
B.A., Russell Sage College; M.A., Columbia University

Rachel J. Benton, B.A., M.A., Ph.D.
Professor Emerita of Health, Physical Education, and Recreation
B.A., De Pauw University; M.A., Ph.D., State University of Iowa

Julien Binford
Professor Emeritus of Art
Graduate, Art Institute of Chicago, Ryerson Fellowship for study in France, Virginia Museum Senior Fellowship, Rosenwald Fellowship.
Represented in the permanent collections of Boston Museum of Fine Arts, University of Nebraska, Virginia Museum of Fine Arts, Springfield, Massachusetts Museum, New Britain, Connecticut Museum, Oberlin College, Phillips Collection, Pentagon WWII display, and others.

Zoe W. Black, B.A., A.M., Ph.D.
Professor Emerita of Biology
B.A., University of Tennessee; A.M., Ph.D., Duke University

Mildred M. Bolling, A.B., A.M.
Professor Emerita of Modern Foreign Languages
A.B., Colorado College; A.M., University of Missouri; diploma, Institut de Phonetique, University of Paris

Stanley F. Bulley, L.R.A.M., Mus. Bac., Mus. Doc.
Professor Emeritus of Music
L.R.A.M., Royal Academy of Music; Mus. Bac., Mus. Doc., University of Toronto; A.R.C.O., Royal College of Organists

L. Clyde Carter, Jr., B.A., M.Div., Ph.D.
Professor Emeritus of Sociology
B.A., Carson-Newman College; M.Div., Union Theological Seminary; Ph.D., Yale University

William A. Castle, B.S., Ph.D.
Professor Emeritus of Biology
B.S., Denison University; Ph.D., University of Chicago

Marion K. Chauncey, B.M., M.A.
Associate Professor Emerita of Music
Graduate, Georgia State Women's College; B.M., Ithaca Conservatory of Music; M.A., Columbia University

Juanita H. Clement, B.A., M.A.
Associate Professor Emerita of Health and Physical Education
B.S., Radford College; M.A., George Peabody College

Herbert L. Cover, B.S., M.S., Ph.D.
Professor Emeritus of Chemistry
B.S., M.S., Ph.D., University of Virginia

Eileen K. Dodd, Ph.B., M.A., Ph.D.
Professor Emerita of Psychology
Ph.B., Muhlenburg College; M.A., Ph.D., New York University

Mildred A. Droste, B.S., M.Ed.
Associate Professor Emerita of Health and Physical Education
B.S., Longwood College; M.Ed., Women's College of the University of North Carolina

Albert G. Duke, A.B., M.A.
Associate Professor Emeritus of Speech
A.B., M.A., Syracuse University

Anne F. Hamer, B.M., M.M.
Associate Professor Emerita of Music
B.M., University of Michigan; M.M., The Catholic University of America

Margaret Hargrove, A.B., A.M., Ph.D., L.H.D.
Professor Emerita of Classics
A.B., Randolph-Macon Women's College; A.M., Ph.D., Cornell University; L.H.D., Lake Erie College

Anna Mae Harris, B.A., M.A.
Associate Professor Emerita of Mathematical Sciences
B.A., Mary Washington College; M.A., University of Virginia

Sonja Dragomanovic Haydar
Professor Emerita of Dance
Professional Dance Certificate, Zagreb State Opera Ballet School, Yugoslavia; diploma, Meister für Tranz, Berlin, Germany; Mozarteum Conservatory of Music, Salzburg, Austria.

Henry W. Hewetson, B.A., M.A., Ph.D.
Professor Emeritus of Economics
B.A., University of Toronto; M.A., University of British Columbia; Ph.D., University of Chicago

Miriam B. Hoge, A.B., M.A., Ph.D.
Professor Emerita of Modern Foreign Languages
A.B., Randolph-Macon Women's College; M.A., Ph.D., University of Pennsylvania

Joseph E. Holmes, B.S., M.S., Ed.D.
Associate Professor Emeritus of Mathematical Sciences
B.S., M.S., State University of New York at New Paltz; Ed.D., University of Virginia

Patricia J. Holmes, B.A., M.S.
Associate Professor Emerita of Mathematics
B.A., University of Colorado; M.S., Oregon State University

Levin Houston, III, B.A.
Associate Professor Emeritus of Music
B.A., Virginia Military Institute

Anna S. Hoye, A.B., M.S., Ph.D.
Professor Emerita of Biology
A.B., Lynchburg College; M.S., Ph.D., University of Wisconsin

Rose Mary Johnson, A.B., M.A., Ph.D.
Professor Emerita of Biological Sciences
A.B., Hood College; M.A., Ph.D., University of Virginia

Walter B. Kelly, B.S., M.A., Ph.D.
Professor Emeritus of English
B.S., Ursinus College; M.A., Ph.D., University of Pennsylvania

Pauline G. King, B.S., M.A., Ph.D.
Professor Emerita of Art
B.S., Mary Washington College; M.A., George Peabody College; Ph.D., University of Chicago

Kurt F. Leidecker, B.A., A.M., Ph.D.
Professor Emeritus of Philosophy
B.A., A.M., Oberlin College; Ph.D., University of Chicago

Almont Lindsey, B.S., M.A., Ph.D.
Professor Emeritus of History
B.S., Knox College; M.A., Ph.D., University of Illinois

George E. Luntz, B.M., M.M., Ph.D.
Professor Emeritus of Music
B.M., M.M., Dana School of Music; Ph.D., State University of Iowa

Fred E. Miller, A.B., M.A.
Associate Professor Emeritus of Economics
A.B., M.A., Colorado State College of Education

Nancy H. Mitchell, B.A., M.A., Ph.D.
Professor Emeritus of English
B.A., Swarthmore College; M.A., Yale University; Ph.D., The Catholic University of America

Sidney H. Mitchell, B.A., M.A., Ph.D.
Professor Emeritus of English
B.A., Swarthmore College; M.A., Ph.D., University of Virginia

Mary Jo Parrish, B.A., M.A., Ph.D.
Professor Emerita of Biology
B.A., M.A., University of North Carolina; Ph.D., University of Virginia

William C. Pinschmidt, Jr., B.S., M.S., Ph.D.
Professor Emeritus of Biological Sciences
B.S., Mount Union College; M.S., Ohio State University; Ph.D., Duke University

Alice B. Rabson, A.B., M.S., Ph.D.
Professor Emerita of Psychology
A.B., Cornell University; M.S., Ph.D., Purdue University

Claudia M. Read, B.S., M.A.
Professor Emerita of Health, Physical Education, and Recreation
B.S., Women's College of the University of North Carolina; M.A., New York University

Carmen L. Rivera, B.A., M.A., Ph.D.
Professor Emerita of Modern Foreign Languages
B.A., University of Puerto Rico; M.A., Florida State College for Women; Ph.D., University of Salamanca, Spain

Mary Ellen Stephenson, B.A., M.A., Ph.D.
Professor Emerita of Modern Foreign Languages
B.A., Westhampton College; M.A., Middlebury College; Ph.D., University of Chicago

Laura V. Sumner, A.B., M.A., Ph.D.
Professor Emerita of Classics
A.B., Vassar College; M.A., Ph.D., The Johns Hopkins University

Glen R. Thomas, B.A., M.A., Ph.D.
Professor Emeritus of American Studies
B.A., Stanford University; M.A., The American University; Ph.D., Emory University

Joseph C. Vance, B.A., M.A., Ph.D.
Professor Emeritus of History
B.A., M.A., Ph.D., University of Virginia

Katharine F. Wells, B.S., Ed.M., M.S., Ph.D
Aossciate Professor Emerita of Health, Physical Education, and Recreation
B.S., New York University; Ed.M., Boston University; M.S., Wellesley College; Ph.D., State University of Iowa

Edgar E. Woodward, B.S.
Professor Emeritus, Comptroller
B.S., Ohio State University

Rebecca T. Woosley, A.B., B.S., M.S.
Associate Professor Emerita of Health and Physical Education
A.B., Women's College of the University of North Carolina; B.S., Mary Washington College; M.S., Louisiana State University

CALENDAR

★★★★★

Mary Washington College 1989-91

	1989	1990
Commencement	May 13	May 12

Summer Session

The first five-week term will be held in May/June, and the second five-week term in June/July; specific dates will be announced in the *Summer Session Bulletin*, published in April.

Regular Session

Fall Semester	1989	1990
Residence halls open 9:00 a.m. for new students	Th 8/24	Th 8/23
Residence halls open 1:00-5:00 p.m. for returning students traveling long distances	Sa 8/26	Sa 8/25
Residence halls open 9:00 a.m. for returning students	Su 8/27	Su 8/26
Convocation	Su 8/27	Su 8/26
Classes begin; late registration	M 8/28	M 8/27
Drop/Add begins	T 8/29	T 8/28
Last day to add courses	M 9/4	M 9/3

Last day to change to or from pass/fail	M 9/11	M 9/10
Last day to drop courses without penalty	M 9/18	M 9/17
Family Weekend	F - Sa 9/22-23	F - Sa 9/14-15
Fall Break begins at 5:00 p.m. (Residence halls close at 7:00 p.m.)	F 10/13	F 10/12
Residence halls open at 1:00 p.m.	T 10/17	T 10/16
Fall Break ends 8:00 a.m.	W 10/18	W 10/17
Mid-semester progress reports due by 10:00 a.m.	Th 10/19	Th 10/18
No withdrawal from specific courses after this date	F 11/3	F 11/2
Registration for coming Spring semester	M - F 11/6-17	M - F 11/5-16
Thanksgiving holiday begins at 12:05 p.m. (Residence halls close at 2:00 p.m.)	W 11/22	W 11/21
Residence halls open at 1:00 p.m.	Su 11/26	Su 11/25
Thanksgiving holiday ends at 8:00 a.m.	M 11/27	M 11/26
Last day of classes	Th 12/7	Th 12/6
Reading Period	F - Su 12/8-10	F - Su 12/7-9
Examinations	M - Sa 12/11-16	M - Sa 12/10-15
Residence halls close at 9:00 p.m.	Sa 12/16	Sa 12/15

Spring Semester	1990	1991
Residence halls open 9:00 a.m. for returning and new students	Su 1/14	Su 1/13
Classes begin; late registration	M 1/15	M 1/14
Drop/Add begins	T 1/16	T 1/15
Last day to add courses	M 1/22	M 1/21
Last day to change to or from pass/fail	M 1/29	M 1/28
Last day to drop courses without penalty	M 2/5	M 2/4
Mid-semester progress reports due by 10:00 a.m.	Th 3/8	Th 3/7
Spring Break begins at 5:00 p.m. (Residence halls close at 7:00 p.m.)	F 3/9	F 3/8
Residence halls open at 1:00 p.m.	Su 3/18	Su 3/17
Spring Break ends at 8:00 a.m.	M 3/19	M 3/18
No withdrawals from specific courses after this date	F 3/30	F 3/29
Outcomes Assessment testing for graduating seniors	M-Su 3/26-4/8	M-Su 3/25-4/7
Registration for coming Fall semester	M - F 4/9-20	M - F 4/8-19
Last day of classes	Th 4/26	Th 4/25
Reading Period	F - Su 4/27-29	F - Su 4/26-28
Examinations	M - Sa 4/30-5/5	M - Sa 4/29-5/4
Residence halls close at 9:00 p.m. for students who are not candidates for graduation	Sa 5/5	Sa 5/4
Commencement	Sa 5/12	Sa 5/11
Residence halls close at 5:00 p.m.	Sa 5/12	Sa 5/11

MARY WASHINGTON COLLEGE
FREDERICKSBURG, VIRGINIA 22401-5358

NON-PROFIT ORGANIZATION
U.S. POSTAGE PAID
PERMIT NO. 227
FREDERICKSBURG, VA